



Full wwPDB X-ray Structure Validation Report ⓘ

Sep 17, 2017 – 09:50 PM EDT

PDB ID : 5JJ3
Title : Refined Structure of the Mature Virion Conformation of P22 Portal Protein
Authors : Lokareddy, R.K.; Sankhala, R.S.; Cingolani, G.
Deposited on : unknown
Resolution : 7.00 Å(reported)

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

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

A user guide is available at

<http://wwpdb.org/validation/2016/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Xtriage (Phenix) : 1.9-1692
EDS : rb-20029824
Percentile statistics : 20161228.v01 (using entries in the PDB archive December 28th 2016)
Refmac : 5.8.0135
CCP4 : 6.5.0
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : rb-20029824

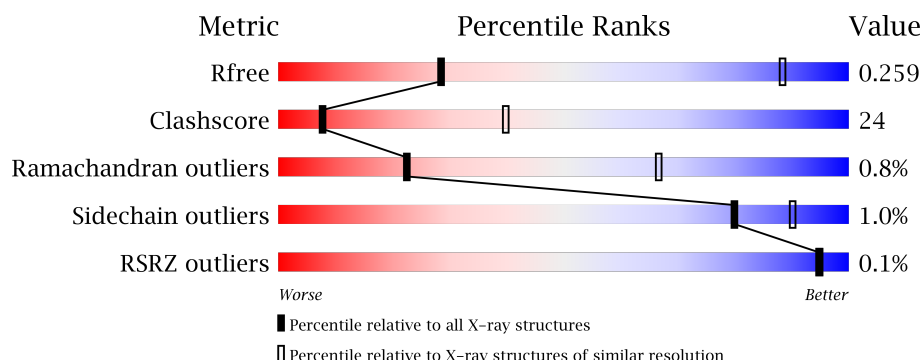
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 7.00 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}	100719	1100 (10.00-3.70)
Clashscore	112137	1035 (10.00-3.80)
Ramachandran outliers	110173	1003 (10.00-3.76)
Sidechain outliers	110143	1098 (10.00-3.70)
RSRZ outliers	101464	1003 (10.00-3.72)

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

Mol	Chain	Length	Quality of chain
1	A	725	
1	B	725	
1	C	725	
1	D	725	
1	E	725	

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Mol	Chain	Length	Quality of chain
1	F	725	 49% 43% 7%
1	G	725	 49% 42% 7%
1	H	725	 50% 41% 7%
1	I	725	 49% 43% 7%
1	J	725	 50% 42% 7%
1	K	725	 49% 43% 7%
1	L	725	 49% 43% 7%

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 64536 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.

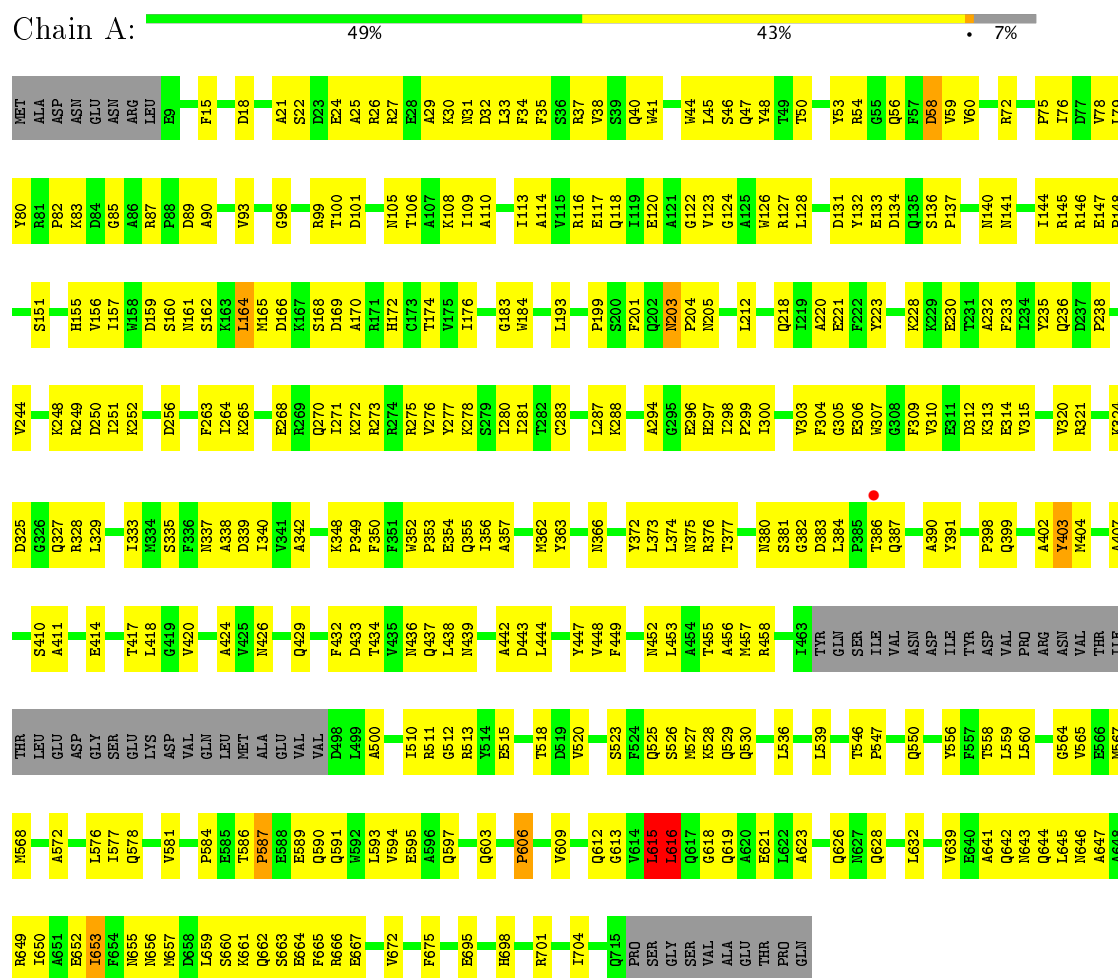
- Molecule 1 is a protein called Portal protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	673	Total	C	N	O	S	0	0	0
			5378	3367	937	1051	23			
1	B	673	Total	C	N	O	S	0	0	0
			5378	3367	937	1051	23			
1	C	673	Total	C	N	O	S	0	0	0
			5378	3367	937	1051	23			
1	D	673	Total	C	N	O	S	0	0	0
			5378	3367	937	1051	23			
1	E	673	Total	C	N	O	S	0	0	0
			5378	3367	937	1051	23			
1	F	673	Total	C	N	O	S	0	0	0
			5378	3367	937	1051	23			
1	G	673	Total	C	N	O	S	0	0	0
			5378	3367	937	1051	23			
1	H	673	Total	C	N	O	S	0	0	0
			5378	3367	937	1051	23			
1	I	673	Total	C	N	O	S	0	0	0
			5378	3367	937	1051	23			
1	J	673	Total	C	N	O	S	0	0	0
			5378	3367	937	1051	23			
1	K	673	Total	C	N	O	S	0	0	0
			5378	3367	937	1051	23			
1	L	673	Total	C	N	O	S	0	0	0
			5378	3367	937	1051	23			

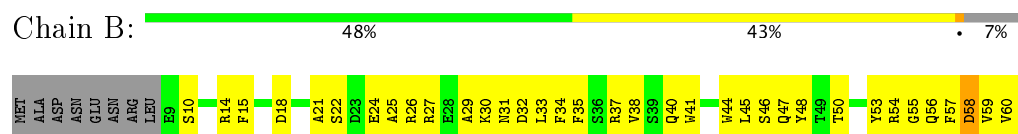
3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of 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.

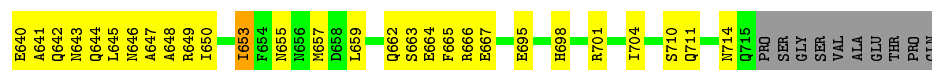
• Molecule 1: Portal protein



• Molecule 1: Portal protein

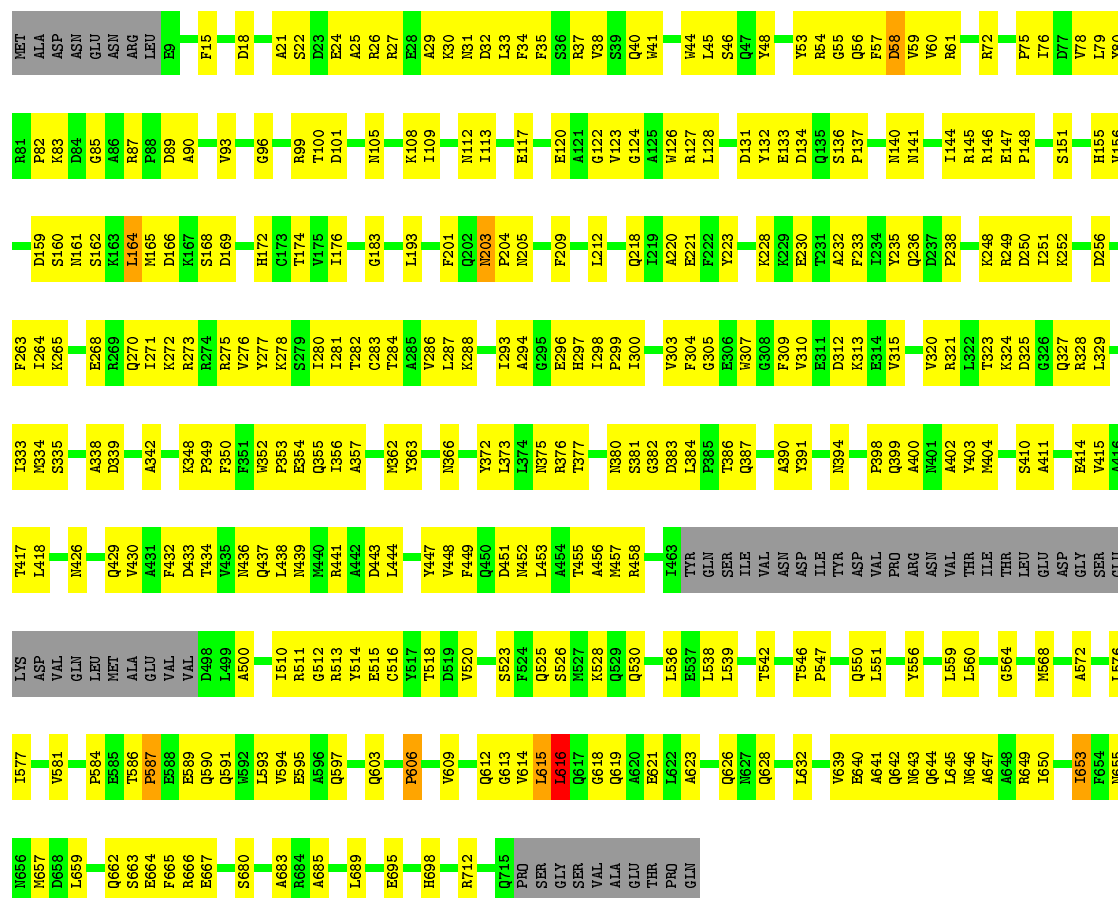






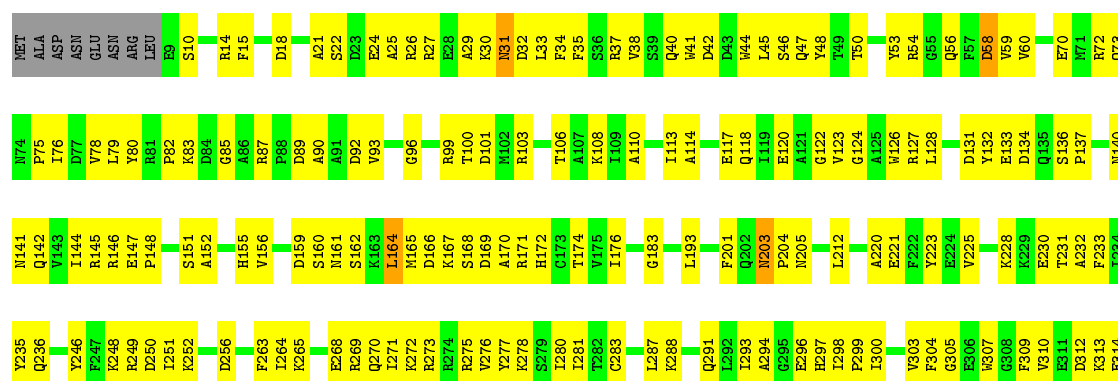
• Molecule 1: Portal protein

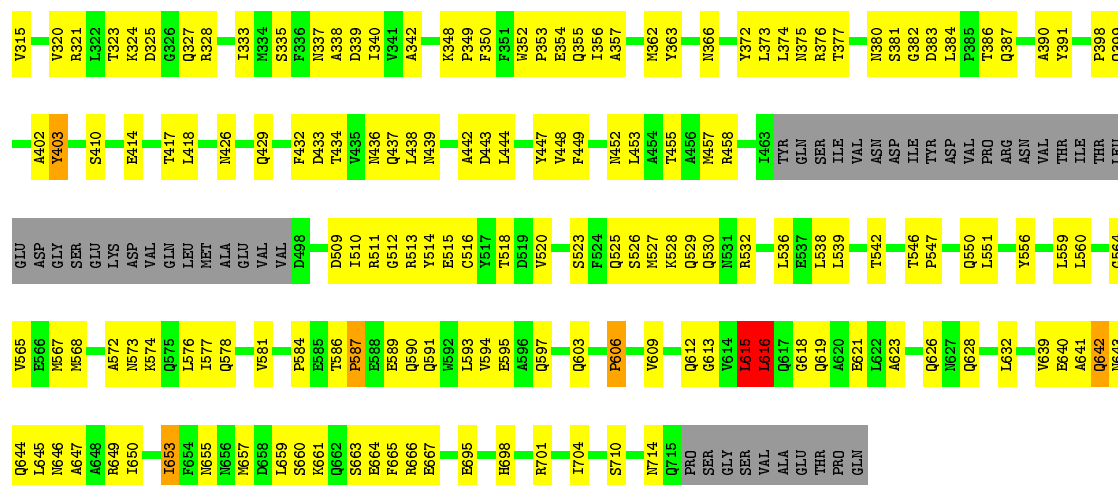
Chain D: 50% 42% 7%



• Molecule 1: Portal protein

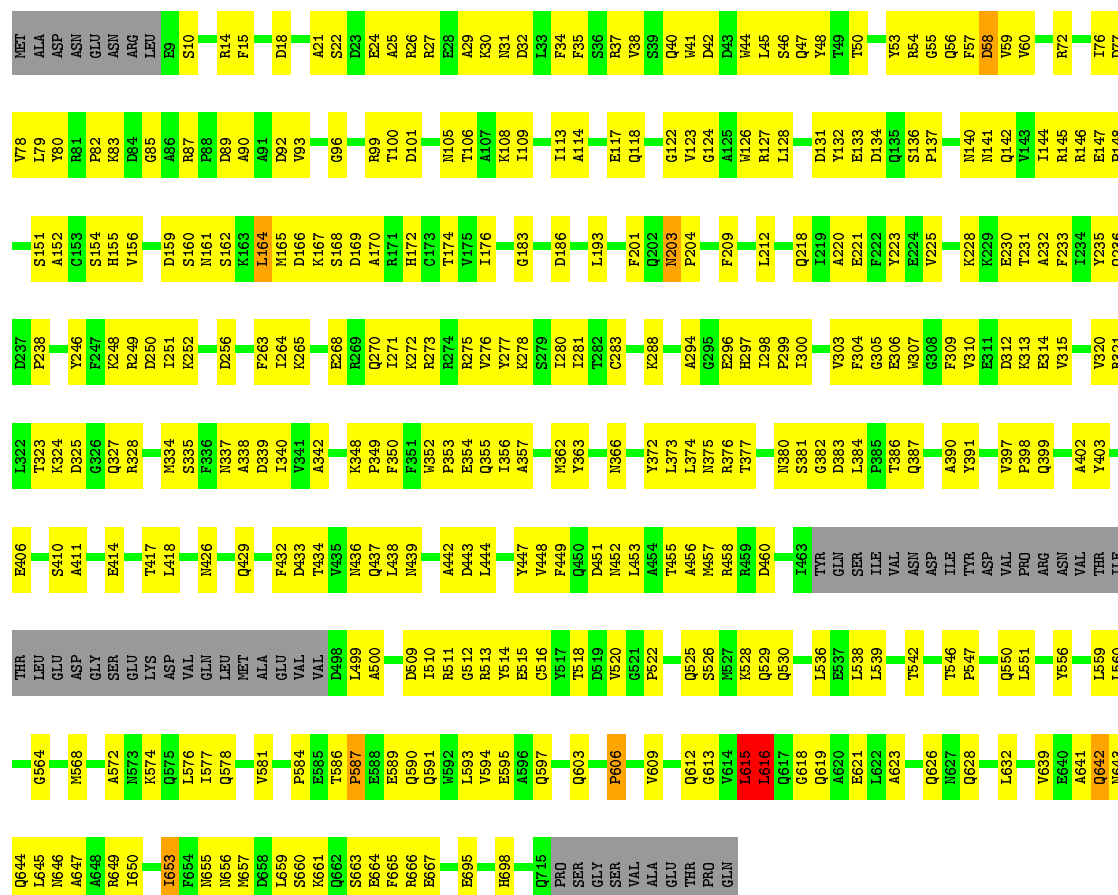
Chain E: 48% 43% 7%





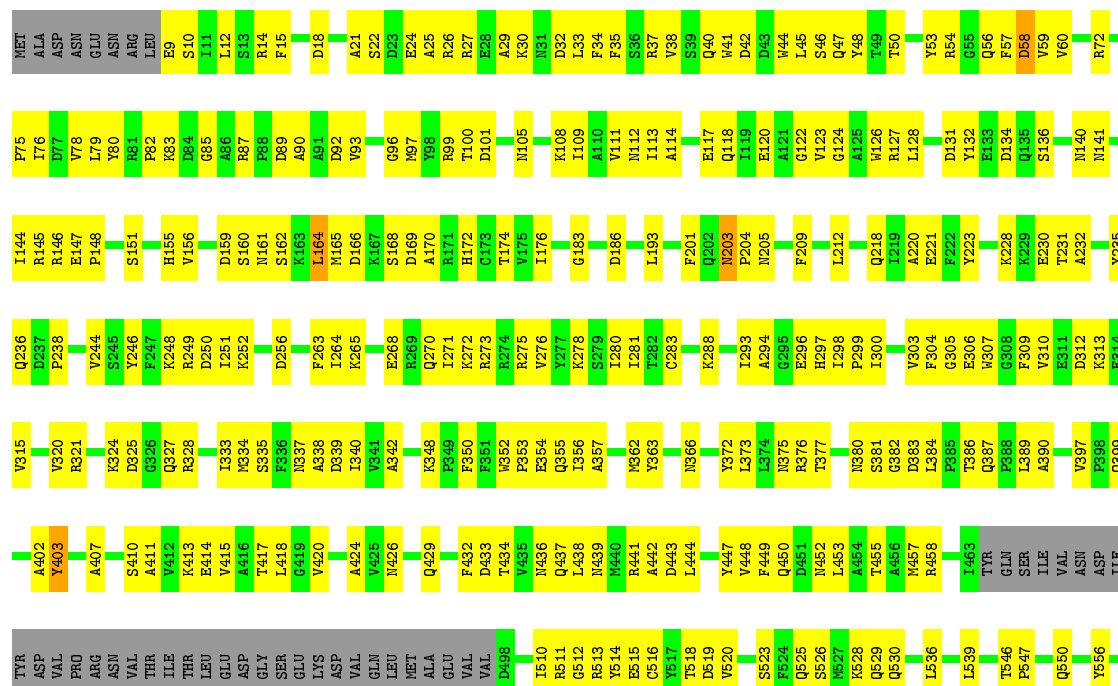
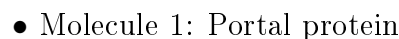
• Molecule 1: Portal protein

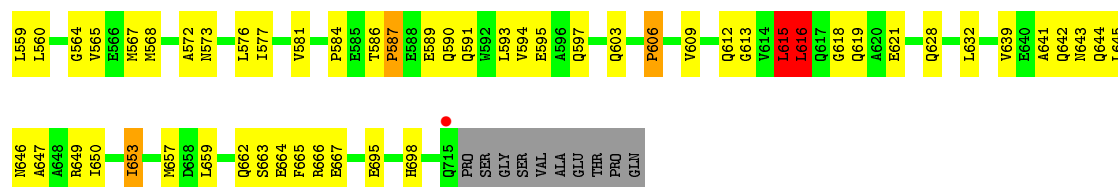
Chain F: 49% 43% 7%



• Molecule 1: Portal protein

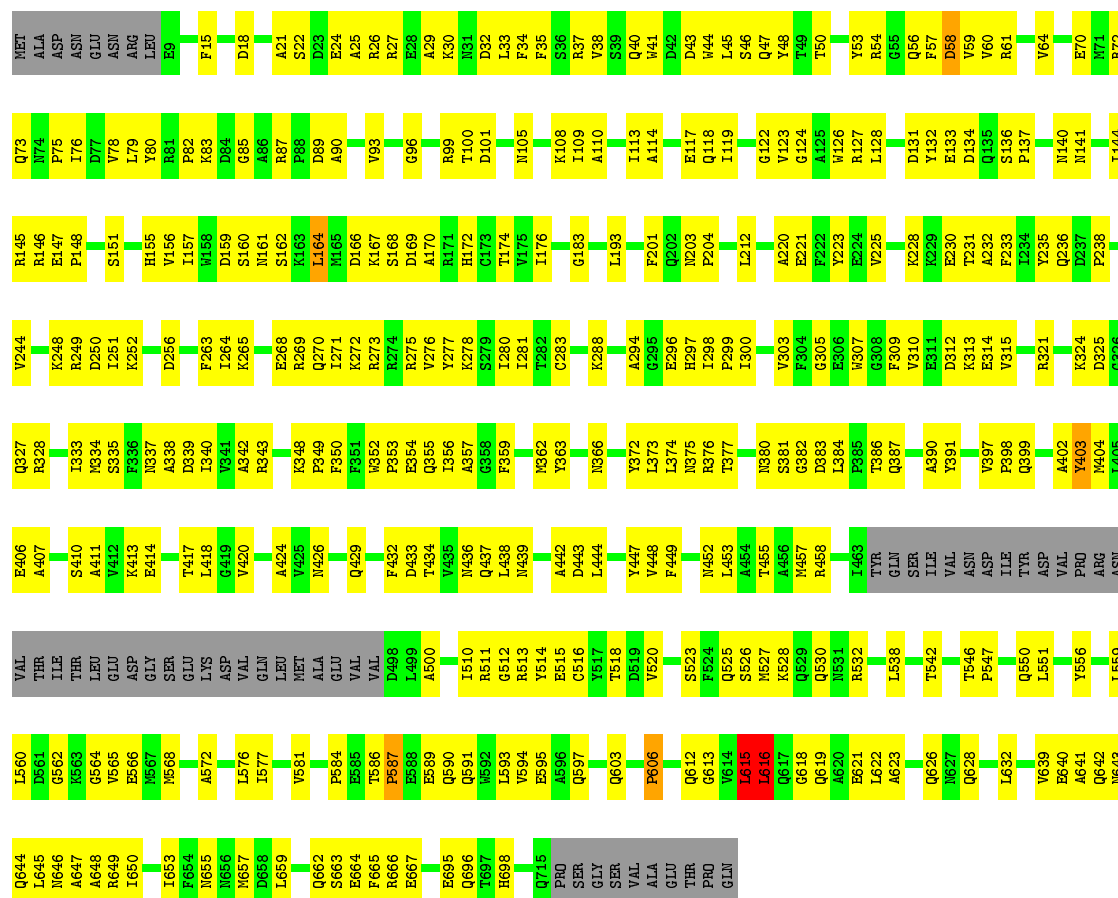
Chain G: 49% 42% 7%





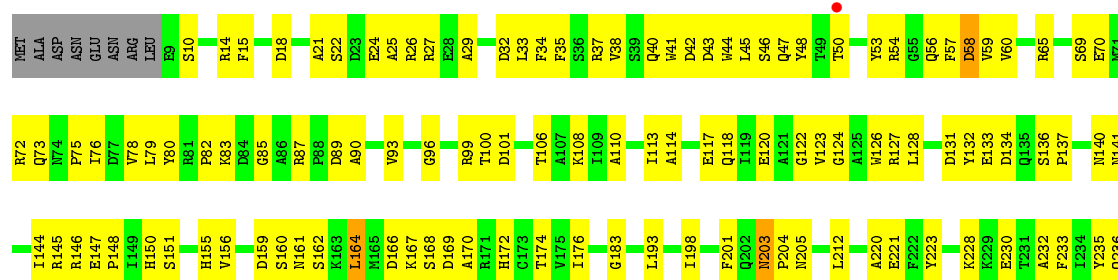
• Molecule 1: Portal protein

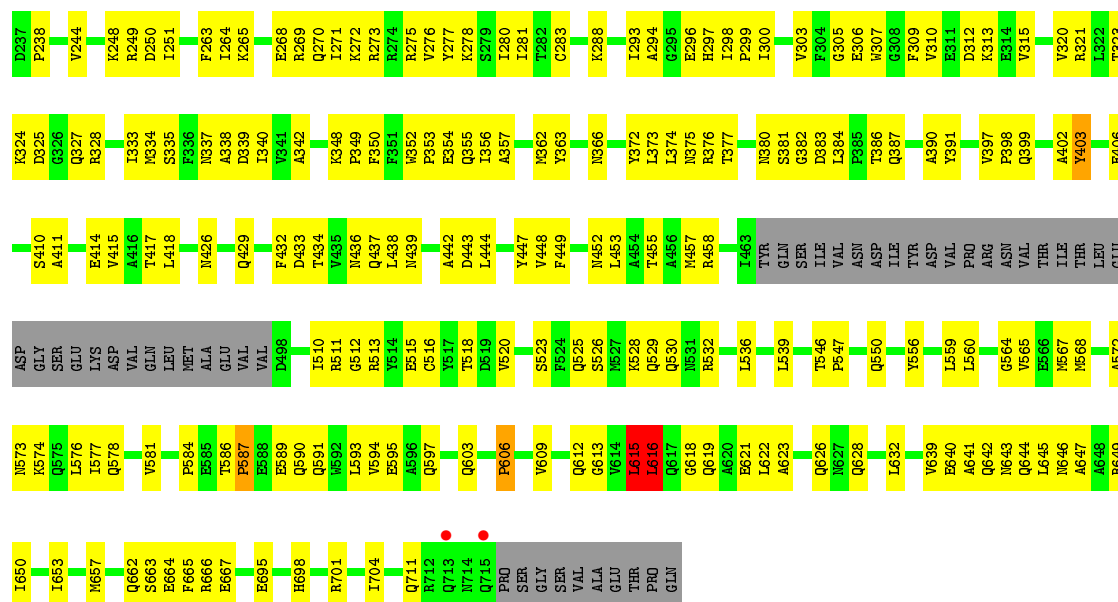
Chain I: 49% 43% 7%



• Molecule 1: Portal protein

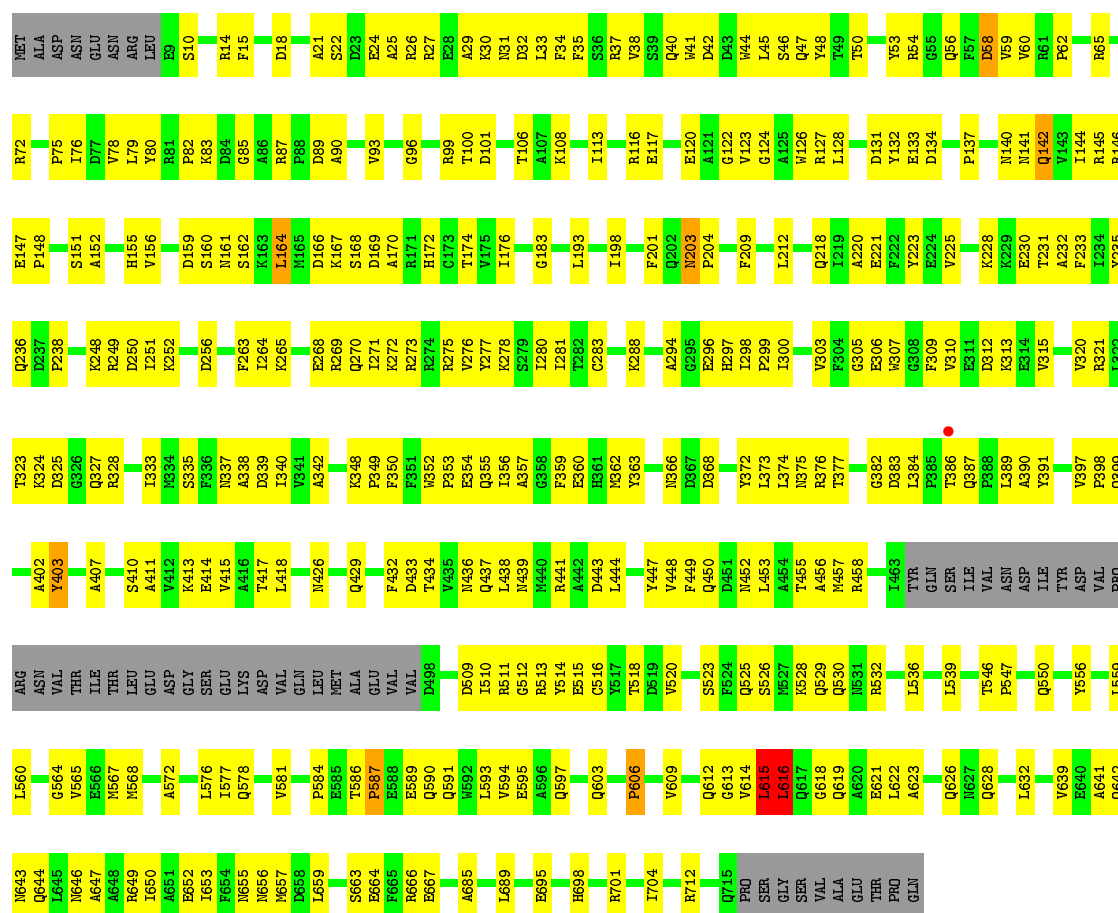
Chain J: 50% 42% 7%





• Molecule 1: Portal protein

Chain K: 49% 43% 7%



• Molecule 1: Portal protein

Chain L:  49% 43% 7%

R649	A572	GLU	E414	D325	K252	V78
I650	A572	ASP	T417	G326	K252	L79
A651	L576	GLY	T417	Q327	D256	R81
E652	L576	SER	L418	R328		P82
I653	I577	GLU	G419			K83
F654	I577	LYS	V420	I333	A259	D84
M655	V581	ASP		M334		G85
M656	P584	VAL	A424	S335	F263	A86
M657	E585	GLN	V425	S335	K265	R87
L658	E585	LEU	M426	F336		P88
L659	T586	MET		N337	E268	D89
	S587	ALA	Q429	A338	K269	A90
Q662	E588	GLU	F432	D339	D270	V93
S663	E589	VAL	D433	I340	I271	
E664	Q590	VAL	T434	A342	K272	
F665	Q591	D498	V434		R273	
R666	N592		V435	K348	R274	G96
E667	L593	D509	M436	P349	R275	D169
	V594	I510	Q437	F350	V276	A170
T671	E595	R511	L438	F351	T277	T100
	A596	G512	M439	W352	K278	D101
F675	Q597	R513	N440	P353	S279	C173
	Q603	Y514	R441	E354	T280	N105
E695		E515	A442	Q355	T281	T106
		T518	D443	I356	T282	A107
H698	P606	D519	L444	A357	C283	I176
R701	V609	V520	Y447	M362	T284	G183
			V448	Y363		A110
I704	Q612	S523	F449	N366		L193
	G613	F524	Q450			N111
Q715	V614	Q525	D451		Q291	N112
PRO	L615	S526	M452	Y372	A294	I113
SER	L616	S526	L453	L373	G295	A114
GLY	Q617	K528	L453	L374	E296	E117
	Q618	Q529	T455	N375	R297	V38
SER	Q619	Q530	A456	R376	T297	S59
VAL	Q619	Q530	M456	T377	T298	Q118
ALA	E621	L536	R457		P299	G122
GLU	L622	E637	R458	N380	I300	V123
THR	A623	L538		S381		G124
PRO		L539	T463	G382		A125
GLN	Q626	T542	T463	G382	V303	L26
	N627		GLN	D383	F304	R127
	Q628		SER	L384	G305	L128
	T629		ILE	F385	E306	
	L630	T546	VAL	T386	N307	D131
	S631	P547	ASN	Q387	G308	Y132
	L632	Q550	ASP	A390	F309	E133
		L551	ILE	Y391	F309	D134
			TTR	D311	E312	Q135
			ASP	R312	G311	F57
	V639	Y556	VAL	V397	K313	D58
	E640		PRO	P398	E314	R54
	A641		ARG	Q399	V315	G55
	Q642	L559	ASN			Q56
	N643	L560	VAL	A402	V320	F57
	Q644	G564	THR	Y403	R321	V59
	L645		ILE	S410	T323	V60
	N646		THR		T324	R61
	A647	M567	THR			R72
	L648	M568	ILE			I76
			LEU			D77

4 Data and refinement statistics

Property	Value	Source
Space group	I 4	Depositor
Cell constants a, b, c, α , β , γ	409.04Å 409.04Å 260.00Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	14.99 – 7.00 14.99 – 7.00	Depositor EDS
% Data completeness (in resolution range)	99.0 (14.99-7.00) 99.1 (14.99-7.00)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	3.07 (at 7.36Å)	Xtriage
Refinement program	PHENIX (1.10.1_2155: ???)	Depositor
R, R_{free}	0.239 , 0.260 0.233 , 0.259	Depositor DCC
R_{free} test set	1561 reflections (5.19%)	DCC
Wilson B-factor (Å ²)	214.7	Xtriage
Anisotropy	0.009	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.14 , -10.0	EDS
L-test for twinning ²	$\langle L \rangle = 0.45$, $\langle L^2 \rangle = 0.28$	Xtriage
Estimated twinning fraction	0.045 for -k,-h,-l	Xtriage
F_o, F_c correlation	0.88	EDS
Total number of atoms	64536	wwPDB-VP
Average B, all atoms (Å ²)	118.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.93% 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 ⓘ

5.1 Standard geometry ⓘ

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	0.28	0/5482	0.58	3/7429 (0.0%)
1	B	0.28	0/5482	0.59	2/7429 (0.0%)
1	C	0.28	0/5482	0.59	2/7429 (0.0%)
1	D	0.28	0/5482	0.57	3/7429 (0.0%)
1	E	0.27	0/5482	0.58	2/7429 (0.0%)
1	F	0.27	0/5482	0.58	3/7429 (0.0%)
1	G	0.27	0/5482	0.58	2/7429 (0.0%)
1	H	0.27	0/5482	0.57	2/7429 (0.0%)
1	I	0.28	0/5482	0.59	3/7429 (0.0%)
1	J	0.29	1/5482 (0.0%)	0.59	3/7429 (0.0%)
1	K	0.30	1/5482 (0.0%)	0.59	2/7429 (0.0%)
1	L	0.29	1/5482 (0.0%)	0.58	3/7429 (0.0%)
All	All	0.28	3/65784 (0.0%)	0.58	30/89148 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	4
1	B	0	4
1	C	0	3
1	D	0	4
1	E	0	3
1	F	0	4
1	G	0	4
1	H	0	3
1	I	0	3
1	J	0	3
1	K	0	4
1	L	0	3
All	All	0	42

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	K	198	ILE	C-N	8.54	1.50	1.34
1	J	198	ILE	C-N	8.02	1.49	1.34
1	L	198	ILE	C-N	6.80	1.47	1.34

All (30) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	I	616	LEU	CA-CB-CG	13.49	146.32	115.30
1	J	616	LEU	CA-CB-CG	13.31	145.92	115.30
1	C	615	LEU	CA-CB-CG	12.84	144.83	115.30
1	B	616	LEU	CA-CB-CG	12.57	144.21	115.30
1	I	615	LEU	CA-CB-CG	12.56	144.19	115.30
1	B	615	LEU	CA-CB-CG	12.46	143.96	115.30
1	F	615	LEU	CA-CB-CG	12.45	143.93	115.30
1	E	615	LEU	CA-CB-CG	12.36	143.72	115.30
1	K	615	LEU	CA-CB-CG	12.34	143.69	115.30
1	J	615	LEU	CA-CB-CG	12.26	143.49	115.30
1	K	616	LEU	CA-CB-CG	12.20	143.35	115.30
1	A	615	LEU	CA-CB-CG	12.12	143.17	115.30
1	A	616	LEU	CA-CB-CG	12.11	143.16	115.30
1	G	615	LEU	CA-CB-CG	12.05	143.02	115.30
1	C	616	LEU	CA-CB-CG	11.96	142.81	115.30
1	E	616	LEU	CA-CB-CG	11.84	142.52	115.30
1	L	615	LEU	CA-CB-CG	11.83	142.51	115.30
1	F	616	LEU	CA-CB-CG	11.65	142.10	115.30
1	H	615	LEU	CA-CB-CG	11.46	141.65	115.30
1	G	616	LEU	CA-CB-CG	11.10	140.82	115.30
1	H	616	LEU	CA-CB-CG	11.05	140.73	115.30
1	D	616	LEU	CA-CB-CG	10.79	140.13	115.30
1	L	616	LEU	CA-CB-CG	10.30	138.98	115.30
1	D	615	LEU	CA-CB-CG	9.18	136.41	115.30
1	F	616	LEU	CB-CG-CD1	6.51	122.07	111.00
1	J	616	LEU	CB-CG-CD1	6.50	122.05	111.00
1	I	616	LEU	CB-CG-CD1	6.36	121.82	111.00
1	L	616	LEU	CB-CG-CD1	6.20	121.55	111.00
1	D	616	LEU	CB-CG-CD1	5.88	120.99	111.00
1	A	616	LEU	CB-CG-CD1	5.07	119.62	111.00

There are no chirality outliers.

All (42) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	212	LEU	Peptide
1	A	456	ALA	Peptide
1	A	59	VAL	Peptide
1	A	606	PRO	Peptide
1	B	212	LEU	Peptide
1	B	456	ALA	Peptide
1	B	59	VAL	Peptide
1	B	606	PRO	Peptide
1	C	212	LEU	Peptide
1	C	59	VAL	Peptide
1	C	606	PRO	Peptide
1	D	212	LEU	Peptide
1	D	456	ALA	Peptide
1	D	59	VAL	Peptide
1	D	606	PRO	Peptide
1	E	212	LEU	Peptide
1	E	59	VAL	Peptide
1	E	606	PRO	Peptide
1	F	212	LEU	Peptide
1	F	456	ALA	Peptide
1	F	59	VAL	Peptide
1	F	606	PRO	Peptide
1	G	212	LEU	Peptide
1	G	456	ALA	Peptide
1	G	59	VAL	Peptide
1	G	606	PRO	Peptide
1	H	212	LEU	Peptide
1	H	59	VAL	Peptide
1	H	606	PRO	Peptide
1	I	212	LEU	Peptide
1	I	59	VAL	Peptide
1	I	606	PRO	Peptide
1	J	212	LEU	Peptide
1	J	59	VAL	Peptide
1	J	606	PRO	Peptide
1	K	212	LEU	Peptide
1	K	456	ALA	Peptide
1	K	59	VAL	Peptide
1	K	606	PRO	Peptide
1	L	212	LEU	Peptide
1	L	59	VAL	Peptide
1	L	606	PRO	Peptide

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	5378	0	5178	281	0
1	B	5378	0	5178	286	0
1	C	5378	0	5178	295	0
1	D	5378	0	5178	276	0
1	E	5378	0	5178	290	0
1	F	5378	0	5178	278	0
1	G	5378	0	5178	277	0
1	H	5378	0	5178	279	0
1	I	5378	0	5178	280	0
1	J	5378	0	5178	280	0
1	K	5378	0	5178	287	0
1	L	5378	0	5178	283	0
All	All	64536	0	62136	3062	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 24.

All (3062) 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:J:220:ALA:HB3	1:J:281:ILE:O	1.55	1.05
1:B:220:ALA:HB3	1:B:281:ILE:O	1.58	1.03
1:E:220:ALA:HB3	1:E:281:ILE:O	1.58	1.02
1:I:220:ALA:HB3	1:I:281:ILE:O	1.59	1.02
1:K:220:ALA:HB3	1:K:281:ILE:O	1.59	1.01
1:H:220:ALA:HB3	1:H:281:ILE:O	1.60	1.01
1:C:220:ALA:HB3	1:C:281:ILE:O	1.61	1.01
1:A:220:ALA:HB3	1:A:281:ILE:O	1.60	1.00
1:L:220:ALA:HB3	1:L:281:ILE:O	1.61	0.99
1:G:220:ALA:HB3	1:G:281:ILE:O	1.61	0.99
1:A:613:GLY:HA2	1:A:616:LEU:HD12	1.47	0.97
1:F:220:ALA:HB3	1:F:281:ILE:O	1.63	0.97
1:D:220:ALA:HB3	1:D:281:ILE:O	1.66	0.95
1:H:613:GLY:HA2	1:H:616:LEU:HD13	1.49	0.94
1:B:613:GLY:HA2	1:B:616:LEU:HD13	1.49	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:613:GLY:HA2	1:G:616:LEU:HD13	1.53	0.91
1:D:577:ILE:HG12	1:D:597:GLN:HE22	1.36	0.91
1:L:577:ILE:HG12	1:L:597:GLN:HE22	1.36	0.90
1:A:352:TRP:HB3	1:B:376:ARG:HD2	1.53	0.89
1:H:352:TRP:HB3	1:I:376:ARG:HD2	1.55	0.89
1:C:577:ILE:HG12	1:C:597:GLN:HE22	1.37	0.89
1:A:376:ARG:HD2	1:L:352:TRP:HB3	1.55	0.89
1:I:577:ILE:HG12	1:I:597:GLN:HE22	1.37	0.88
1:B:352:TRP:HB3	1:C:376:ARG:HD2	1.54	0.88
1:I:352:TRP:HB3	1:J:376:ARG:HD2	1.57	0.87
1:G:352:TRP:HB3	1:H:376:ARG:HD2	1.54	0.86
1:I:434:THR:O	1:I:437:GLN:HB3	1.75	0.86
1:D:352:TRP:HB3	1:E:376:ARG:HD2	1.57	0.86
1:K:352:TRP:HB3	1:L:376:ARG:HD2	1.57	0.86
1:B:577:ILE:HG12	1:B:597:GLN:HE22	1.39	0.86
1:G:577:ILE:HG12	1:G:597:GLN:HE22	1.39	0.85
1:C:352:TRP:HB3	1:D:376:ARG:HD2	1.58	0.85
1:F:352:TRP:HB3	1:G:376:ARG:HD2	1.59	0.85
1:J:352:TRP:HB3	1:K:376:ARG:HD2	1.59	0.85
1:D:355:GLN:HG2	1:E:376:ARG:HH12	1.39	0.85
1:E:352:TRP:HB3	1:F:376:ARG:HD2	1.57	0.85
1:A:353:PRO:HD2	1:B:376:ARG:HB2	1.60	0.84
1:B:353:PRO:HD2	1:C:376:ARG:HB2	1.60	0.84
1:E:577:ILE:HG12	1:E:597:GLN:HE22	1.42	0.84
1:B:307:TRP:HA	1:B:315:VAL:O	1.78	0.83
1:B:621:GLU:OE2	1:C:619:GLN:NE2	2.11	0.83
1:H:248:LYS:HD2	1:H:251:ILE:HB	1.61	0.83
1:H:612:GLN:HA	1:H:615:LEU:HD13	1.61	0.83
1:J:577:ILE:HG12	1:J:597:GLN:HE22	1.44	0.83
1:A:577:ILE:HG12	1:A:597:GLN:HE22	1.44	0.83
1:F:577:ILE:HG12	1:F:597:GLN:HE22	1.43	0.83
1:K:577:ILE:HG12	1:K:597:GLN:HE22	1.44	0.83
1:H:72:ARG:HD2	1:H:108:LYS:HE2	1.60	0.82
1:A:621:GLU:OE2	1:B:619:GLN:NE2	2.11	0.82
1:L:296:GLU:HB2	1:L:449:PHE:HD2	1.44	0.82
1:E:621:GLU:OE2	1:F:619:GLN:NE2	2.13	0.81
1:F:621:GLU:OE2	1:G:619:GLN:NE2	2.13	0.81
1:C:613:GLY:HA2	1:C:616:LEU:CD1	2.10	0.81
1:H:621:GLU:OE2	1:I:619:GLN:NE2	2.14	0.81
1:J:621:GLU:OE2	1:K:619:GLN:NE2	2.12	0.81
1:I:353:PRO:HD2	1:J:376:ARG:HB2	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:619:GLN:NE2	1:L:621:GLU:OE2	2.13	0.81
1:F:248:LYS:HD2	1:F:251:ILE:HB	1.63	0.81
1:D:72:ARG:HD2	1:D:108:LYS:HE2	1.61	0.81
1:I:72:ARG:HD2	1:I:108:LYS:HE2	1.62	0.81
1:C:546:THR:HB	1:C:550:GLN:HE22	1.45	0.80
1:H:577:ILE:HG12	1:H:597:GLN:HE22	1.43	0.80
1:L:307:TRP:HA	1:L:315:VAL:O	1.80	0.80
1:H:613:GLY:HA2	1:H:616:LEU:CD1	2.10	0.80
1:B:72:ARG:HD2	1:B:108:LYS:HE2	1.61	0.80
1:D:128:LEU:HA	1:D:145:ARG:O	1.81	0.80
1:D:251:ILE:HD11	1:D:273:ARG:HH22	1.47	0.80
1:D:621:GLU:OE2	1:E:619:GLN:NE2	2.14	0.80
1:G:25:ALA:O	1:G:29:ALA:HB2	1.81	0.80
1:I:621:GLU:OE2	1:J:619:GLN:NE2	2.14	0.80
1:K:621:GLU:OE2	1:L:619:GLN:NE2	2.14	0.80
1:I:127:ARG:O	1:I:146:ARG:HA	1.82	0.80
1:G:307:TRP:HA	1:G:315:VAL:O	1.82	0.80
1:G:621:GLU:OE2	1:H:619:GLN:NE2	2.14	0.80
1:H:353:PRO:HD2	1:I:376:ARG:HB2	1.63	0.79
1:B:248:LYS:HD2	1:B:251:ILE:HB	1.65	0.79
1:I:248:LYS:HD2	1:I:251:ILE:HB	1.64	0.79
1:J:353:PRO:HD2	1:K:376:ARG:HB2	1.64	0.79
1:J:355:GLN:HG2	1:K:376:ARG:HH12	1.47	0.79
1:D:296:GLU:HB2	1:D:449:PHE:HD2	1.47	0.79
1:F:546:THR:HB	1:F:550:GLN:HE22	1.48	0.79
1:H:434:THR:O	1:H:437:GLN:HB3	1.82	0.79
1:K:546:THR:HB	1:K:550:GLN:HE22	1.48	0.79
1:C:621:GLU:OE2	1:D:619:GLN:NE2	2.16	0.79
1:B:128:LEU:HA	1:B:145:ARG:O	1.83	0.78
1:J:127:ARG:O	1:J:146:ARG:HA	1.83	0.78
1:L:72:ARG:HD2	1:L:108:LYS:HE2	1.65	0.78
1:E:353:PRO:HD2	1:F:376:ARG:HB2	1.63	0.78
1:A:296:GLU:HB2	1:A:449:PHE:HD2	1.48	0.78
1:G:612:GLN:HA	1:G:615:LEU:HD13	1.66	0.78
1:H:127:ARG:O	1:H:146:ARG:HA	1.84	0.78
1:K:127:ARG:O	1:K:146:ARG:HA	1.84	0.78
1:D:25:ALA:O	1:D:29:ALA:HB2	1.84	0.78
1:I:355:GLN:HG2	1:J:376:ARG:HH12	1.48	0.78
1:G:72:ARG:HD2	1:G:108:LYS:HE2	1.66	0.77
1:B:127:ARG:O	1:B:146:ARG:HA	1.83	0.77
1:D:546:THR:HB	1:D:550:GLN:HE22	1.47	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:72:ARG:HD2	1:E:108:LYS:HE2	1.66	0.77
1:H:355:GLN:HG2	1:I:376:ARG:HH12	1.47	0.77
1:I:25:ALA:O	1:I:29:ALA:HB2	1.84	0.77
1:J:248:LYS:HD2	1:J:251:ILE:HB	1.65	0.77
1:A:248:LYS:HD2	1:A:251:ILE:HB	1.64	0.77
1:D:127:ARG:O	1:D:146:ARG:HA	1.84	0.77
1:A:546:THR:HB	1:A:550:GLN:HE22	1.50	0.77
1:B:355:GLN:HG2	1:C:376:ARG:HH12	1.48	0.77
1:L:128:LEU:HA	1:L:145:ARG:O	1.85	0.77
1:I:546:THR:HB	1:I:550:GLN:HE22	1.48	0.77
1:A:376:ARG:HH12	1:L:355:GLN:HG2	1.50	0.77
1:C:307:TRP:HA	1:C:315:VAL:O	1.83	0.77
1:E:25:ALA:O	1:E:29:ALA:HB2	1.85	0.77
1:C:248:LYS:HD2	1:C:251:ILE:HB	1.66	0.77
1:F:72:ARG:HD2	1:F:108:LYS:HE2	1.67	0.77
1:L:127:ARG:O	1:L:146:ARG:HA	1.85	0.77
1:K:307:TRP:HA	1:K:315:VAL:O	1.85	0.76
1:K:353:PRO:HD2	1:L:376:ARG:HB2	1.65	0.76
1:A:72:ARG:HD2	1:A:108:LYS:HE2	1.67	0.76
1:D:434:THR:O	1:D:437:GLN:HB3	1.86	0.76
1:F:355:GLN:HG2	1:G:376:ARG:HH12	1.50	0.76
1:G:546:THR:HB	1:G:550:GLN:HE22	1.51	0.76
1:E:546:THR:HB	1:E:550:GLN:HE22	1.50	0.76
1:I:128:LEU:HA	1:I:145:ARG:O	1.85	0.76
1:F:296:GLU:HB2	1:F:449:PHE:HD2	1.49	0.76
1:K:248:LYS:HD2	1:K:251:ILE:HB	1.65	0.76
1:A:25:ALA:O	1:A:29:ALA:HB2	1.85	0.76
1:D:248:LYS:HD2	1:D:251:ILE:HB	1.68	0.76
1:F:127:ARG:O	1:F:146:ARG:HA	1.85	0.76
1:G:248:LYS:HD2	1:G:251:ILE:HB	1.66	0.76
1:F:128:LEU:HA	1:F:145:ARG:O	1.86	0.76
1:E:355:GLN:HG2	1:F:376:ARG:HH12	1.50	0.76
1:B:546:THR:HB	1:B:550:GLN:HE22	1.50	0.76
1:H:296:GLU:HB2	1:H:449:PHE:HD2	1.48	0.76
1:L:248:LYS:HD2	1:L:251:ILE:HB	1.67	0.76
1:L:546:THR:HB	1:L:550:GLN:HE22	1.50	0.76
1:E:310:VAL:HG22	1:F:40:GLN:HG3	1.68	0.76
1:J:25:ALA:O	1:J:29:ALA:HB2	1.86	0.76
1:F:251:ILE:HD11	1:F:273:ARG:HH22	1.49	0.75
1:E:296:GLU:HB2	1:E:449:PHE:HD2	1.50	0.75
1:H:546:THR:HB	1:H:550:GLN:HE22	1.49	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:127:ARG:O	1:A:146:ARG:HA	1.86	0.75
1:I:296:GLU:HB2	1:I:449:PHE:HD2	1.50	0.75
1:B:122:GLY:O	1:B:305:GLY:N	2.18	0.75
1:F:25:ALA:O	1:F:29:ALA:HB2	1.86	0.75
1:J:546:THR:HB	1:J:550:GLN:HE22	1.50	0.75
1:E:248:LYS:HD2	1:E:251:ILE:HB	1.68	0.75
1:K:613:GLY:HA2	1:K:616:LEU:HD13	1.68	0.75
1:A:663:SER:HA	1:A:666:ARG:HE	1.52	0.75
1:A:355:GLN:HG2	1:B:376:ARG:HH12	1.51	0.75
1:C:25:ALA:O	1:C:29:ALA:HB2	1.86	0.75
1:B:25:ALA:O	1:B:29:ALA:HB2	1.86	0.74
1:D:122:GLY:O	1:D:305:GLY:N	2.19	0.74
1:J:613:GLY:HA2	1:J:616:LEU:HD12	1.68	0.74
1:J:251:ILE:HD11	1:J:273:ARG:HH22	1.51	0.74
1:K:128:LEU:HA	1:K:145:ARG:O	1.87	0.74
1:B:296:GLU:HB2	1:B:449:PHE:HD2	1.52	0.74
1:G:127:ARG:O	1:G:146:ARG:HA	1.86	0.74
1:G:353:PRO:HD2	1:H:376:ARG:HB2	1.68	0.74
1:I:251:ILE:HD11	1:I:273:ARG:HH22	1.53	0.74
1:L:25:ALA:O	1:L:29:ALA:HB2	1.86	0.74
1:A:325:ASP:OD2	1:B:56:GLN:N	2.21	0.74
1:C:663:SER:HA	1:C:666:ARG:HE	1.52	0.74
1:E:663:SER:HA	1:E:666:ARG:HE	1.51	0.74
1:K:296:GLU:HB2	1:K:449:PHE:HD2	1.50	0.74
1:C:251:ILE:HD11	1:C:273:ARG:HH22	1.53	0.74
1:C:296:GLU:HB2	1:C:449:PHE:HD2	1.53	0.74
1:J:434:THR:O	1:J:437:GLN:HB3	1.87	0.74
1:L:122:GLY:O	1:L:305:GLY:N	2.19	0.74
1:F:307:TRP:HA	1:F:315:VAL:O	1.88	0.74
1:A:307:TRP:HA	1:A:315:VAL:O	1.86	0.74
1:E:122:GLY:O	1:E:305:GLY:N	2.19	0.74
1:E:127:ARG:O	1:E:146:ARG:HA	1.87	0.74
1:J:307:TRP:HA	1:J:315:VAL:O	1.86	0.74
1:K:25:ALA:O	1:K:29:ALA:HB2	1.87	0.74
1:C:122:GLY:O	1:C:305:GLY:N	2.20	0.73
1:C:356:ILE:HG13	1:C:357:ALA:H	1.53	0.73
1:F:122:GLY:O	1:F:305:GLY:N	2.19	0.73
1:F:37:ARG:NH1	1:F:48:TYR:OH	2.22	0.73
1:F:511:ARG:HD3	1:F:513:ARG:HH22	1.54	0.73
1:G:296:GLU:HB2	1:G:449:PHE:HD2	1.53	0.73
1:J:663:SER:HA	1:J:666:ARG:HE	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:663:SER:HA	1:B:666:ARG:HE	1.54	0.73
1:D:353:PRO:HD2	1:E:376:ARG:HB2	1.68	0.73
1:G:251:ILE:HD11	1:G:273:ARG:HH22	1.54	0.73
1:H:38:VAL:HG21	1:H:324:LYS:HD2	1.69	0.73
1:L:356:ILE:HG13	1:L:357:ALA:H	1.53	0.73
1:G:128:LEU:HA	1:G:145:ARG:O	1.88	0.73
1:E:294:ALA:HA	1:E:453:LEU:HD23	1.71	0.73
1:K:663:SER:HA	1:K:666:ARG:HE	1.54	0.73
1:L:294:ALA:HA	1:L:453:LEU:HD23	1.71	0.73
1:B:612:GLN:HA	1:B:615:LEU:HD13	1.71	0.72
1:C:127:ARG:O	1:C:146:ARG:HA	1.89	0.72
1:D:307:TRP:HA	1:D:315:VAL:O	1.89	0.72
1:H:128:LEU:HA	1:H:145:ARG:O	1.89	0.72
1:J:296:GLU:HB2	1:J:449:PHE:HD2	1.53	0.72
1:E:307:TRP:HA	1:E:315:VAL:O	1.88	0.72
1:F:294:ALA:HA	1:F:453:LEU:HD23	1.71	0.72
1:F:663:SER:HA	1:F:666:ARG:HE	1.52	0.72
1:K:72:ARG:HD2	1:K:108:LYS:HE2	1.70	0.72
1:G:294:ALA:HA	1:G:453:LEU:HD23	1.71	0.72
1:H:25:ALA:O	1:H:29:ALA:HB2	1.88	0.72
1:I:58:ASP:HA	1:I:327:GLN:OE1	1.90	0.72
1:K:434:THR:O	1:K:437:GLN:HB3	1.90	0.72
1:H:586:THR:HG22	1:H:590:GLN:HE22	1.53	0.72
1:I:325:ASP:OD2	1:J:56:GLN:N	2.22	0.72
1:J:122:GLY:O	1:J:305:GLY:N	2.20	0.72
1:E:128:LEU:HA	1:E:145:ARG:O	1.90	0.72
1:C:434:THR:O	1:C:437:GLN:HB3	1.90	0.72
1:D:663:SER:HA	1:D:666:ARG:HE	1.52	0.72
1:L:663:SER:HA	1:L:666:ARG:HE	1.54	0.72
1:H:294:ALA:HA	1:H:453:LEU:HD23	1.72	0.72
1:I:122:GLY:O	1:I:305:GLY:N	2.20	0.72
1:K:355:GLN:HG2	1:L:376:ARG:HH12	1.55	0.72
1:C:128:LEU:HA	1:C:145:ARG:O	1.88	0.72
1:F:612:GLN:HA	1:F:615:LEU:HD13	1.72	0.72
1:D:325:ASP:OD2	1:E:56:GLN:N	2.23	0.71
1:F:356:ILE:HG13	1:F:357:ALA:H	1.55	0.71
1:K:612:GLN:HA	1:K:615:LEU:HD13	1.72	0.71
1:C:353:PRO:HD2	1:D:376:ARG:HB2	1.72	0.71
1:F:586:THR:HG22	1:F:590:GLN:HE22	1.54	0.71
1:H:650:ILE:HA	1:H:653:ILE:HD12	1.73	0.71
1:B:434:THR:O	1:B:437:GLN:HB3	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:307:TRP:HA	1:I:315:VAL:O	1.90	0.71
1:C:38:VAL:HG21	1:C:324:LYS:HD2	1.70	0.71
1:F:434:THR:O	1:F:437:GLN:HB3	1.89	0.71
1:L:251:ILE:HD11	1:L:273:ARG:HH22	1.56	0.71
1:C:325:ASP:OD2	1:D:56:GLN:N	2.24	0.71
1:A:122:GLY:O	1:A:305:GLY:N	2.21	0.71
1:K:586:THR:HG22	1:K:590:GLN:HE22	1.56	0.71
1:A:128:LEU:HA	1:A:145:ARG:O	1.90	0.71
1:C:58:ASP:HA	1:C:327:GLN:OE1	1.91	0.71
1:G:270:GLN:NE2	1:G:271:ILE:O	2.24	0.71
1:J:612:GLN:HA	1:J:615:LEU:HD13	1.73	0.71
1:K:294:ALA:HA	1:K:453:LEU:HD23	1.70	0.71
1:E:251:ILE:HD11	1:E:273:ARG:HH22	1.55	0.70
1:A:164:LEU:HD12	1:A:166:ASP:HB3	1.73	0.70
1:G:663:SER:HA	1:G:666:ARG:HE	1.55	0.70
1:A:356:ILE:HG13	1:A:357:ALA:H	1.57	0.70
1:K:356:ILE:HG13	1:K:357:ALA:H	1.56	0.70
1:C:72:ARG:HD2	1:C:108:LYS:HE2	1.71	0.70
1:I:612:GLN:HA	1:I:615:LEU:HD13	1.74	0.70
1:E:356:ILE:HG13	1:E:357:ALA:H	1.56	0.70
1:B:325:ASP:OD2	1:C:56:GLN:N	2.24	0.70
1:F:650:ILE:HA	1:F:653:ILE:HD12	1.73	0.70
1:G:434:THR:O	1:G:437:GLN:HB3	1.90	0.70
1:A:294:ALA:HA	1:A:453:LEU:HD23	1.71	0.70
1:D:356:ILE:HG13	1:D:357:ALA:H	1.57	0.70
1:H:663:SER:HA	1:H:666:ARG:HE	1.55	0.70
1:K:122:GLY:O	1:K:305:GLY:N	2.22	0.70
1:L:339:ASP:HA	1:L:342:ALA:HB3	1.74	0.70
1:A:251:ILE:HD11	1:A:273:ARG:HH22	1.57	0.70
1:H:122:GLY:O	1:H:305:GLY:N	2.22	0.70
1:J:128:LEU:HA	1:J:145:ARG:O	1.90	0.70
1:F:613:GLY:HA2	1:F:616:LEU:HD12	1.73	0.70
1:L:434:THR:O	1:L:437:GLN:HB3	1.92	0.70
1:A:434:THR:O	1:A:437:GLN:HB3	1.91	0.69
1:C:612:GLN:HA	1:C:615:LEU:HD13	1.72	0.69
1:E:325:ASP:OD2	1:F:56:GLN:N	2.25	0.69
1:F:325:ASP:OD2	1:G:56:GLN:N	2.25	0.69
1:F:353:PRO:HD2	1:G:376:ARG:HB2	1.73	0.69
1:J:38:VAL:HG21	1:J:324:LYS:HD2	1.74	0.69
1:E:613:GLY:HA2	1:E:616:LEU:HD13	1.73	0.69
1:B:58:ASP:HA	1:B:327:GLN:OE1	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:134:ASP:OD1	1:C:141:ASN:ND2	2.21	0.69
1:G:38:VAL:HG21	1:G:324:LYS:HD2	1.74	0.69
1:I:294:ALA:HA	1:I:453:LEU:HD23	1.72	0.69
1:J:72:ARG:HD2	1:J:108:LYS:HE2	1.73	0.69
1:I:356:ILE:HG13	1:I:357:ALA:H	1.57	0.69
1:C:113:ILE:HG13	1:C:148:PRO:HB2	1.74	0.69
1:H:325:ASP:OD2	1:I:56:GLN:N	2.24	0.69
1:B:586:THR:HG22	1:B:590:GLN:HE22	1.56	0.69
1:D:160:SER:OG	1:D:172:HIS:ND1	2.21	0.69
1:D:294:ALA:HA	1:D:453:LEU:HD23	1.74	0.69
1:I:663:SER:HA	1:I:666:ARG:HE	1.55	0.69
1:A:376:ARG:HB2	1:L:353:PRO:HD2	1.72	0.69
1:A:650:ILE:HA	1:A:653:ILE:HD12	1.74	0.69
1:D:58:ASP:HA	1:D:327:GLN:OE1	1.92	0.69
1:D:586:THR:HG22	1:D:590:GLN:HE22	1.55	0.69
1:J:325:ASP:OD2	1:K:56:GLN:N	2.26	0.69
1:K:251:ILE:HD11	1:K:273:ARG:HH22	1.57	0.69
1:A:87:ARG:HG2	1:A:89:ASP:H	1.57	0.69
1:E:58:ASP:HA	1:E:327:GLN:OE1	1.92	0.69
1:F:160:SER:OG	1:F:172:HIS:ND1	2.23	0.69
1:G:511:ARG:HD3	1:G:513:ARG:HH22	1.58	0.69
1:J:160:SER:OG	1:J:172:HIS:ND1	2.22	0.69
1:A:586:THR:HG22	1:A:590:GLN:HE22	1.58	0.69
1:C:613:GLY:O	1:C:616:LEU:HD13	1.93	0.69
1:G:356:ILE:HG13	1:G:357:ALA:H	1.58	0.69
1:B:251:ILE:HD11	1:B:273:ARG:HH22	1.59	0.68
1:H:356:ILE:HG13	1:H:357:ALA:H	1.56	0.68
1:H:37:ARG:NH1	1:H:48:TYR:OH	2.26	0.68
1:I:613:GLY:HA2	1:I:616:LEU:HD12	1.75	0.68
1:J:356:ILE:HG13	1:J:357:ALA:H	1.56	0.68
1:A:612:GLN:HA	1:A:615:LEU:HD13	1.75	0.68
1:C:711:GLN:OE1	1:D:712:ARG:NH1	2.26	0.68
1:G:122:GLY:O	1:G:305:GLY:N	2.23	0.68
1:H:134:ASP:OD1	1:H:141:ASN:ND2	2.22	0.68
1:B:356:ILE:HG13	1:B:357:ALA:H	1.58	0.68
1:C:613:GLY:HA2	1:C:616:LEU:HD12	1.74	0.68
1:C:58:ASP:HB3	1:C:60:VAL:HG23	1.75	0.68
1:J:586:THR:HG22	1:J:590:GLN:HE22	1.59	0.68
1:L:58:ASP:HA	1:L:327:GLN:OE1	1.93	0.68
1:C:270:GLN:NE2	1:C:271:ILE:O	2.26	0.68
1:D:270:GLN:NE2	1:D:271:ILE:O	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:160:SER:OG	1:I:172:HIS:ND1	2.20	0.68
1:B:650:ILE:HA	1:B:653:ILE:HD12	1.74	0.68
1:G:510:ILE:HG12	1:G:512:GLY:H	1.58	0.68
1:A:56:GLN:N	1:L:325:ASP:OD2	2.26	0.68
1:J:294:ALA:HA	1:J:453:LEU:HD23	1.75	0.68
1:E:80:TYR:HD1	1:E:518:THR:HA	1.60	0.68
1:E:93:VAL:O	1:E:96:GLY:N	2.27	0.68
1:K:325:ASP:OD2	1:L:56:GLN:N	2.27	0.68
1:B:339:ASP:HA	1:B:342:ALA:HB3	1.76	0.67
1:G:25:ALA:O	1:G:29:ALA:CB	2.42	0.67
1:H:164:LEU:HD12	1:H:166:ASP:HB3	1.76	0.67
1:B:294:ALA:HA	1:B:453:LEU:HD23	1.74	0.67
1:B:25:ALA:O	1:B:29:ALA:CB	2.41	0.67
1:H:307:TRP:HA	1:H:315:VAL:O	1.93	0.67
1:K:510:ILE:HG12	1:K:512:GLY:H	1.59	0.67
1:K:160:SER:OG	1:K:172:HIS:ND1	2.21	0.67
1:L:93:VAL:O	1:L:96:GLY:N	2.28	0.67
1:D:339:ASP:HA	1:D:342:ALA:HB3	1.75	0.67
1:F:164:LEU:HD12	1:F:166:ASP:HB3	1.75	0.67
1:F:58:ASP:HB3	1:F:60:VAL:HG23	1.77	0.67
1:A:25:ALA:O	1:A:29:ALA:CB	2.42	0.67
1:B:58:ASP:HB3	1:B:60:VAL:HG23	1.77	0.67
1:H:25:ALA:O	1:H:29:ALA:CB	2.42	0.67
1:C:294:ALA:HA	1:C:453:LEU:HD23	1.76	0.67
1:F:58:ASP:HA	1:F:327:GLN:OE1	1.93	0.67
1:G:355:GLN:HG2	1:H:376:ARG:HH12	1.59	0.67
1:H:251:ILE:HD11	1:H:273:ARG:HH22	1.59	0.67
1:J:22:SER:O	1:J:26:ARG:HG2	1.95	0.67
1:B:22:SER:O	1:B:26:ARG:HG2	1.94	0.67
1:F:38:VAL:HG21	1:F:324:LYS:HD2	1.77	0.67
1:J:650:ILE:HA	1:J:653:ILE:HD12	1.77	0.67
1:J:161:ASN:HD21	1:K:183:GLY:HA3	1.59	0.67
1:K:58:ASP:HB3	1:K:60:VAL:HG23	1.76	0.67
1:D:58:ASP:HB3	1:D:60:VAL:HG23	1.77	0.67
1:H:87:ARG:HG2	1:H:89:ASP:H	1.60	0.67
1:B:270:GLN:NE2	1:B:271:ILE:O	2.27	0.66
1:A:40:GLN:HG3	1:L:310:VAL:HG22	1.76	0.66
1:L:38:VAL:HG21	1:L:324:LYS:HD2	1.77	0.66
1:C:79:LEU:H	1:C:520:VAL:HA	1.60	0.66
1:E:25:ALA:O	1:E:29:ALA:CB	2.43	0.66
1:G:93:VAL:O	1:G:96:GLY:N	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:556:TYR:HB3	1:C:572:ALA:HB2	1.77	0.66
1:G:58:ASP:HA	1:G:327:GLN:OE1	1.95	0.66
1:J:134:ASP:OD1	1:J:141:ASN:ND2	2.23	0.66
1:L:556:TYR:HB3	1:L:572:ALA:HB2	1.78	0.66
1:A:270:GLN:NE2	1:A:271:ILE:O	2.28	0.66
1:D:164:LEU:HD12	1:D:166:ASP:HB3	1.77	0.66
1:E:586:THR:HG22	1:E:590:GLN:HE22	1.59	0.66
1:I:25:ALA:O	1:I:29:ALA:CB	2.42	0.66
1:J:37:ARG:NH1	1:J:48:TYR:OH	2.28	0.66
1:K:310:VAL:HG22	1:L:40:GLN:HG3	1.77	0.66
1:B:310:VAL:HG22	1:C:40:GLN:HG3	1.77	0.66
1:B:613:GLY:HA2	1:B:616:LEU:CD1	2.22	0.66
1:C:164:LEU:HD12	1:C:166:ASP:HB3	1.76	0.66
1:D:25:ALA:O	1:D:29:ALA:CB	2.42	0.66
1:E:510:ILE:HG12	1:E:512:GLY:H	1.60	0.66
1:F:22:SER:O	1:F:26:ARG:HG2	1.96	0.66
1:H:457:MET:O	1:H:458:ARG:HG2	1.96	0.66
1:K:339:ASP:HA	1:K:342:ALA:HB3	1.78	0.66
1:I:586:THR:HG22	1:I:590:GLN:HE22	1.60	0.66
1:J:457:MET:O	1:J:458:ARG:HG2	1.96	0.66
1:K:134:ASP:OD1	1:K:141:ASN:ND2	2.26	0.66
1:K:511:ARG:HD3	1:K:513:ARG:HH22	1.60	0.66
1:E:434:THR:O	1:E:437:GLN:HB3	1.95	0.66
1:F:113:ILE:HG13	1:F:148:PRO:HB2	1.77	0.66
1:F:510:ILE:HG12	1:F:512:GLY:H	1.61	0.66
1:G:87:ARG:HG2	1:G:89:ASP:H	1.61	0.66
1:E:164:LEU:HD12	1:E:166:ASP:HB3	1.76	0.66
1:E:37:ARG:NH1	1:E:48:TYR:OH	2.29	0.66
1:I:58:ASP:HB3	1:I:60:VAL:HG23	1.77	0.65
1:F:457:MET:O	1:F:458:ARG:HG2	1.97	0.65
1:I:134:ASP:OD1	1:I:141:ASN:ND2	2.25	0.65
1:C:25:ALA:O	1:C:29:ALA:CB	2.44	0.65
1:F:25:ALA:O	1:F:29:ALA:CB	2.44	0.65
1:G:325:ASP:OD2	1:H:56:GLN:N	2.27	0.65
1:K:164:LEU:HD12	1:K:166:ASP:HB3	1.77	0.65
1:L:586:THR:HG22	1:L:590:GLN:HE22	1.61	0.65
1:E:160:SER:OG	1:E:172:HIS:ND1	2.22	0.65
1:E:650:ILE:HA	1:E:653:ILE:HD12	1.77	0.65
1:D:457:MET:O	1:D:458:ARG:HG2	1.96	0.65
1:H:22:SER:O	1:H:26:ARG:HG2	1.97	0.65
1:I:87:ARG:HG2	1:I:89:ASP:H	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:457:MET:O	1:L:458:ARG:HG2	1.96	0.65
1:F:221:GLU:HG2	1:F:280:ILE:HG12	1.79	0.65
1:K:22:SER:O	1:K:26:ARG:HG2	1.96	0.65
1:K:58:ASP:HA	1:K:327:GLN:OE1	1.95	0.65
1:A:22:SER:O	1:A:26:ARG:HG2	1.96	0.65
1:A:93:VAL:O	1:A:96:GLY:N	2.30	0.65
1:E:83:LYS:HB2	1:E:515:GLU:HB3	1.78	0.65
1:J:58:ASP:HB3	1:J:60:VAL:HG23	1.79	0.65
1:A:510:ILE:HG12	1:A:512:GLY:H	1.62	0.65
1:H:93:VAL:O	1:H:96:GLY:N	2.30	0.65
1:C:160:SER:OG	1:C:172:HIS:ND1	2.23	0.65
1:E:577:ILE:HD12	1:E:584:PRO:HB3	1.79	0.65
1:H:221:GLU:HG2	1:H:280:ILE:HG12	1.78	0.65
1:H:613:GLY:CA	1:H:616:LEU:HD13	2.26	0.65
1:C:362:MET:HA	1:C:366:ASN:HB2	1.79	0.64
1:I:22:SER:O	1:I:26:ARG:HG2	1.96	0.64
1:I:38:VAL:HG21	1:I:324:LYS:HD2	1.79	0.64
1:J:25:ALA:O	1:J:29:ALA:CB	2.45	0.64
1:A:83:LYS:HB2	1:A:515:GLU:HB3	1.78	0.64
1:C:457:MET:O	1:C:458:ARG:HG2	1.97	0.64
1:E:22:SER:O	1:E:26:ARG:HG2	1.97	0.64
1:K:270:GLN:NE2	1:K:271:ILE:O	2.30	0.64
1:A:457:MET:O	1:A:458:ARG:HG2	1.98	0.64
1:C:586:THR:HG22	1:C:590:GLN:HE22	1.61	0.64
1:F:87:ARG:HG2	1:F:89:ASP:H	1.62	0.64
1:G:58:ASP:HB3	1:G:60:VAL:HG23	1.78	0.64
1:L:650:ILE:HA	1:L:653:ILE:HD12	1.78	0.64
1:A:183:GLY:HA3	1:L:161:ASN:HD21	1.63	0.64
1:C:510:ILE:HG12	1:C:512:GLY:H	1.62	0.64
1:D:22:SER:O	1:D:26:ARG:HG2	1.96	0.64
1:F:577:ILE:HG12	1:F:597:GLN:NE2	2.13	0.64
1:K:650:ILE:HA	1:K:653:ILE:HD12	1.77	0.64
1:L:25:ALA:O	1:L:29:ALA:CB	2.44	0.64
1:A:58:ASP:HB3	1:A:60:VAL:HG23	1.79	0.64
1:C:93:VAL:O	1:C:96:GLY:N	2.31	0.64
1:E:79:LEU:H	1:E:520:VAL:HA	1.62	0.64
1:G:310:VAL:HG22	1:H:40:GLN:HG3	1.79	0.64
1:G:556:TYR:HB3	1:G:572:ALA:HB2	1.78	0.64
1:H:452:ASN:OD1	1:H:453:LEU:N	2.31	0.64
1:C:87:ARG:HG2	1:C:89:ASP:H	1.63	0.64
1:E:612:GLN:HA	1:E:615:LEU:HD13	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:134:ASP:OD1	1:F:141:ASN:ND2	2.26	0.64
1:F:270:GLN:NE2	1:F:271:ILE:O	2.31	0.64
1:L:433:ASP:O	1:L:437:GLN:N	2.30	0.64
1:B:164:LEU:HD12	1:B:166:ASP:HB3	1.79	0.64
1:C:452:ASN:OD1	1:C:453:LEU:N	2.31	0.64
1:D:510:ILE:HG12	1:D:512:GLY:H	1.63	0.64
1:G:433:ASP:O	1:G:437:GLN:N	2.29	0.64
1:B:457:MET:O	1:B:458:ARG:HG2	1.98	0.64
1:B:510:ILE:HG12	1:B:512:GLY:H	1.63	0.64
1:B:87:ARG:HG2	1:B:89:ASP:H	1.62	0.64
1:D:113:ILE:HG13	1:D:148:PRO:HB2	1.80	0.64
1:J:58:ASP:HA	1:J:327:GLN:OE1	1.97	0.64
1:K:25:ALA:O	1:K:29:ALA:CB	2.45	0.64
1:K:457:MET:O	1:K:458:ARG:HG2	1.98	0.64
1:L:510:ILE:HG12	1:L:512:GLY:H	1.61	0.64
1:A:96:GLY:O	1:A:100:THR:OG1	2.09	0.64
1:F:353:PRO:HA	1:G:373:LEU:HD23	1.80	0.64
1:A:38:VAL:HG21	1:A:324:LYS:HD2	1.79	0.64
1:D:134:ASP:OD1	1:D:141:ASN:ND2	2.26	0.64
1:E:457:MET:O	1:E:458:ARG:HG2	1.97	0.64
1:H:577:ILE:HG12	1:H:597:GLN:NE2	2.11	0.64
1:K:87:ARG:HG2	1:K:89:ASP:H	1.63	0.64
1:D:650:ILE:HA	1:D:653:ILE:HD12	1.80	0.63
1:I:270:GLN:NE2	1:I:271:ILE:O	2.31	0.63
1:B:93:VAL:O	1:B:96:GLY:N	2.31	0.63
1:D:79:LEU:H	1:D:520:VAL:HA	1.62	0.63
1:D:93:VAL:O	1:D:96:GLY:N	2.30	0.63
1:D:96:GLY:O	1:D:100:THR:OG1	2.08	0.63
1:E:58:ASP:HB3	1:E:60:VAL:HG23	1.79	0.63
1:F:93:VAL:O	1:F:96:GLY:N	2.31	0.63
1:G:586:THR:HG22	1:G:590:GLN:HE22	1.61	0.63
1:H:58:ASP:HB3	1:H:60:VAL:HG23	1.80	0.63
1:I:339:ASP:HA	1:I:342:ALA:HB3	1.81	0.63
1:I:510:ILE:HG12	1:I:512:GLY:H	1.63	0.63
1:K:38:VAL:HG21	1:K:324:LYS:HD2	1.80	0.63
1:A:79:LEU:H	1:A:520:VAL:HA	1.62	0.63
1:C:353:PRO:HA	1:D:373:LEU:HD23	1.80	0.63
1:E:117:GLU:HB3	1:E:123:VAL:HG23	1.81	0.63
1:G:437:GLN:HG2	1:G:520:VAL:HG21	1.80	0.63
1:I:457:MET:O	1:I:458:ARG:HG2	1.97	0.63
1:J:93:VAL:O	1:J:96:GLY:N	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:511:ARG:HD3	1:L:513:ARG:HH22	1.63	0.63
1:G:457:MET:O	1:G:458:ARG:HG2	1.98	0.63
1:L:134:ASP:OD1	1:L:141:ASN:ND2	2.24	0.63
1:L:80:TYR:HD1	1:L:518:THR:HA	1.64	0.63
1:B:309:PHE:HB3	1:B:312:ASP:HA	1.81	0.63
1:H:339:ASP:HA	1:H:342:ALA:HB3	1.80	0.63
1:L:164:LEU:HD12	1:L:166:ASP:HB3	1.79	0.63
1:L:79:LEU:H	1:L:520:VAL:HA	1.62	0.63
1:L:58:ASP:HB3	1:L:60:VAL:HG23	1.79	0.63
1:J:164:LEU:HD12	1:J:166:ASP:HB3	1.81	0.63
1:J:511:ARG:HD3	1:J:513:ARG:HH22	1.62	0.63
1:L:87:ARG:HG2	1:L:89:ASP:H	1.62	0.63
1:D:38:VAL:HG21	1:D:324:LYS:HD2	1.80	0.63
1:G:339:ASP:HA	1:G:342:ALA:HB3	1.80	0.63
1:J:362:MET:HA	1:J:366:ASN:HB2	1.80	0.63
1:A:339:ASP:HA	1:A:342:ALA:HB3	1.79	0.63
1:C:577:ILE:HD12	1:C:584:PRO:HB3	1.81	0.63
1:F:297:HIS:CD2	1:F:298:ILE:HG13	2.33	0.63
1:G:22:SER:O	1:G:26:ARG:HG2	1.98	0.63
1:L:250:ASP:OD1	1:L:251:ILE:N	2.32	0.63
1:L:613:GLY:O	1:L:616:LEU:HD12	1.99	0.63
1:C:80:TYR:HD1	1:C:518:THR:HA	1.64	0.63
1:D:250:ASP:OD1	1:D:251:ILE:N	2.32	0.63
1:D:452:ASN:OD1	1:D:453:LEU:N	2.32	0.63
1:E:452:ASN:OD1	1:E:453:LEU:N	2.32	0.63
1:G:650:ILE:HA	1:G:653:ILE:HD12	1.81	0.63
1:H:418:LEU:HD23	1:H:429:GLN:HB3	1.81	0.63
1:A:577:ILE:HG12	1:A:597:GLN:NE2	2.13	0.62
1:B:250:ASP:OD1	1:B:251:ILE:N	2.32	0.62
1:F:339:ASP:HA	1:F:342:ALA:HB3	1.81	0.62
1:H:96:GLY:O	1:H:100:THR:OG1	2.08	0.62
1:K:577:ILE:HD12	1:K:584:PRO:HB3	1.81	0.62
1:A:83:LYS:HE2	1:A:85:GLY:HA3	1.81	0.62
1:B:160:SER:OG	1:B:172:HIS:ND1	2.23	0.62
1:B:276:VAL:HG22	1:B:296:GLU:HA	1.81	0.62
1:E:38:VAL:HG21	1:E:324:LYS:HD2	1.79	0.62
1:H:310:VAL:HG22	1:I:40:GLN:HG3	1.80	0.62
1:A:666:ARG:NH1	1:L:667:GLU:HG2	2.14	0.62
1:J:577:ILE:HG12	1:J:597:GLN:NE2	2.15	0.62
1:L:612:GLN:HA	1:L:615:LEU:HD13	1.81	0.62
1:A:41:TRP:CH2	1:A:44:TRP:HB2	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:437:GLN:HG2	1:B:520:VAL:HG21	1.82	0.62
1:B:452:ASN:OD1	1:B:453:LEU:N	2.32	0.62
1:C:250:ASP:OD1	1:C:251:ILE:N	2.32	0.62
1:K:37:ARG:NH1	1:K:48:TYR:OH	2.29	0.62
1:L:22:SER:O	1:L:26:ARG:HG2	2.00	0.62
1:L:83:LYS:HE2	1:L:85:GLY:HA3	1.82	0.62
1:A:297:HIS:CD2	1:A:298:ILE:HG13	2.35	0.62
1:C:355:GLN:HG2	1:D:376:ARG:HH12	1.63	0.62
1:C:528:LYS:HZ3	1:C:560:LEU:HD23	1.65	0.62
1:G:113:ILE:HG13	1:G:148:PRO:HB2	1.81	0.62
1:L:37:ARG:NH1	1:L:48:TYR:OH	2.29	0.62
1:E:577:ILE:HG12	1:E:597:GLN:NE2	2.12	0.62
1:F:79:LEU:H	1:F:520:VAL:HA	1.64	0.62
1:G:434:THR:HG22	1:H:108:LYS:HE3	1.81	0.62
1:I:164:LEU:HD12	1:I:166:ASP:HB3	1.80	0.62
1:I:83:LYS:HE2	1:I:85:GLY:HA3	1.80	0.62
1:K:362:MET:HA	1:K:366:ASN:HB2	1.80	0.62
1:B:221:GLU:HG2	1:B:280:ILE:HG12	1.82	0.62
1:H:510:ILE:HG12	1:H:512:GLY:H	1.63	0.62
1:A:160:SER:OG	1:A:172:HIS:ND1	2.22	0.62
1:A:452:ASN:OD1	1:A:453:LEU:N	2.33	0.62
1:A:556:TYR:HB3	1:A:572:ALA:HB2	1.80	0.62
1:C:22:SER:O	1:C:26:ARG:HG2	2.00	0.62
1:C:83:LYS:HE2	1:C:85:GLY:HA3	1.80	0.62
1:E:297:HIS:CD2	1:E:298:ILE:HG13	2.35	0.62
1:E:437:GLN:HG2	1:E:520:VAL:HG21	1.82	0.62
1:G:250:ASP:OD1	1:G:251:ILE:N	2.33	0.62
1:G:321:ARG:HA	1:G:324:LYS:HE2	1.81	0.62
1:H:58:ASP:HA	1:H:327:GLN:OE1	1.98	0.62
1:I:452:ASN:OD1	1:I:453:LEU:N	2.33	0.62
1:I:511:ARG:HD3	1:I:513:ARG:HH22	1.62	0.62
1:J:577:ILE:HD12	1:J:584:PRO:HB3	1.82	0.62
1:J:250:ASP:OD1	1:J:251:ILE:N	2.33	0.62
1:J:297:HIS:CD2	1:J:298:ILE:HG13	2.35	0.62
1:L:113:ILE:HG13	1:L:148:PRO:HB2	1.81	0.62
1:L:362:MET:HA	1:L:366:ASN:HB2	1.80	0.62
1:L:653:ILE:O	1:L:657:MET:HG2	2.00	0.62
1:K:664:GLU:HG3	1:L:659:LEU:HD22	1.80	0.62
1:B:577:ILE:HG12	1:B:597:GLN:NE2	2.13	0.62
1:G:79:LEU:H	1:G:520:VAL:HA	1.65	0.62
1:H:160:SER:OG	1:H:172:HIS:ND1	2.22	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:83:LYS:HB2	1:I:515:GLU:HB3	1.81	0.62
1:J:339:ASP:HA	1:J:342:ALA:HB3	1.82	0.62
1:K:117:GLU:HB3	1:K:123:VAL:HG23	1.81	0.62
1:K:236:GLN:HB2	1:K:265:LYS:HD2	1.81	0.62
1:A:372:TYR:HB3	1:L:350:PHE:CD1	2.35	0.61
1:H:653:ILE:O	1:H:657:MET:HG2	2.00	0.61
1:C:41:TRP:CH2	1:C:44:TRP:HB2	2.34	0.61
1:E:250:ASP:OD1	1:E:251:ILE:N	2.33	0.61
1:H:113:ILE:HG13	1:H:148:PRO:HB2	1.81	0.61
1:I:93:VAL:O	1:I:96:GLY:N	2.33	0.61
1:L:577:ILE:HD12	1:L:584:PRO:HB3	1.81	0.61
1:A:250:ASP:OD1	1:A:251:ILE:N	2.33	0.61
1:B:134:ASP:OD1	1:B:141:ASN:ND2	2.30	0.61
1:C:83:LYS:HB2	1:C:515:GLU:HB3	1.82	0.61
1:J:113:ILE:HG13	1:J:148:PRO:HB2	1.81	0.61
1:L:83:LYS:HB2	1:L:515:GLU:HB3	1.80	0.61
1:A:113:ILE:HG13	1:A:148:PRO:HB2	1.82	0.61
1:A:664:GLU:OE2	1:B:666:ARG:NH2	2.34	0.61
1:A:667:GLU:HG2	1:B:666:ARG:NH1	2.15	0.61
1:C:310:VAL:HG22	1:D:40:GLN:HG3	1.83	0.61
1:C:339:ASP:HA	1:C:342:ALA:HB3	1.81	0.61
1:C:363:TYR:OH	1:C:373:LEU:O	2.15	0.61
1:E:667:GLU:HG2	1:F:666:ARG:NH1	2.14	0.61
1:H:270:GLN:NE2	1:H:271:ILE:O	2.33	0.61
1:H:362:MET:HA	1:H:366:ASN:HB2	1.81	0.61
1:I:297:HIS:CD2	1:I:298:ILE:HG13	2.35	0.61
1:I:577:ILE:HD12	1:I:584:PRO:HB3	1.82	0.61
1:K:221:GLU:HG2	1:K:280:ILE:HG12	1.81	0.61
1:L:270:GLN:NE2	1:L:271:ILE:O	2.33	0.61
1:B:363:TYR:OH	1:B:373:LEU:O	2.14	0.61
1:B:79:LEU:H	1:B:520:VAL:HA	1.64	0.61
1:F:250:ASP:OD1	1:F:251:ILE:N	2.33	0.61
1:H:236:GLN:HB2	1:H:265:LYS:HD2	1.83	0.61
1:K:250:ASP:OD1	1:K:251:ILE:N	2.33	0.61
1:H:83:LYS:HB2	1:H:515:GLU:HB3	1.81	0.61
1:A:511:ARG:HD3	1:A:513:ARG:HH22	1.65	0.61
1:A:434:THR:HG22	1:B:108:LYS:HE3	1.83	0.61
1:E:434:THR:HG22	1:F:108:LYS:HE3	1.82	0.61
1:G:362:MET:HA	1:G:366:ASN:HB2	1.82	0.61
1:H:612:GLN:HA	1:H:615:LEU:CD1	2.31	0.61
1:J:452:ASN:OD1	1:J:453:LEU:N	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:87:ARG:HG2	1:J:89:ASP:H	1.64	0.61
1:B:297:HIS:CD2	1:B:298:ILE:HG13	2.36	0.61
1:E:113:ILE:HG13	1:E:148:PRO:HB2	1.83	0.61
1:G:134:ASP:OD1	1:G:141:ASN:ND2	2.27	0.61
1:G:297:HIS:CD2	1:G:298:ILE:HG13	2.36	0.61
1:A:134:ASP:OD1	1:A:141:ASN:ND2	2.25	0.61
1:B:434:THR:HG22	1:C:108:LYS:HE3	1.83	0.61
1:C:37:ARG:NH1	1:C:48:TYR:OH	2.33	0.61
1:D:232:ALA:HB1	1:D:268:GLU:HA	1.82	0.61
1:D:362:MET:HA	1:D:366:ASN:HB2	1.83	0.61
1:D:399:GLN:HA	1:D:402:ALA:HB3	1.83	0.61
1:E:350:PHE:N	1:E:390:ALA:O	2.29	0.61
1:F:96:GLY:O	1:F:100:THR:OG1	2.11	0.61
1:G:639:VAL:O	1:G:643:ASN:ND2	2.31	0.61
1:G:96:GLY:O	1:G:100:THR:OG1	2.10	0.61
1:J:510:ILE:HG12	1:J:512:GLY:H	1.64	0.61
1:K:101:ASP:OD2	1:K:144:ILE:HG12	2.00	0.61
1:K:79:LEU:H	1:K:520:VAL:HA	1.65	0.61
1:D:161:ASN:HD21	1:E:183:GLY:HA3	1.64	0.61
1:D:87:ARG:HG2	1:D:89:ASP:H	1.66	0.61
1:K:161:ASN:HD21	1:L:183:GLY:HA3	1.66	0.61
1:L:452:ASN:OD1	1:L:453:LEU:N	2.33	0.61
1:A:58:ASP:HA	1:A:327:GLN:OE1	2.01	0.60
1:I:434:THR:HG21	1:J:72:ARG:HG3	1.82	0.60
1:B:38:VAL:HG21	1:B:324:LYS:HD2	1.83	0.60
1:C:653:ILE:O	1:C:657:MET:HG2	2.01	0.60
1:D:438:LEU:HD11	1:E:108:LYS:HD3	1.83	0.60
1:F:556:TYR:HB3	1:F:572:ALA:HB2	1.83	0.60
1:H:297:HIS:CD2	1:H:298:ILE:HG13	2.35	0.60
1:J:96:GLY:O	1:J:100:THR:OG1	2.10	0.60
1:D:37:ARG:NH1	1:D:48:TYR:OH	2.33	0.60
1:E:603:GLN:O	1:E:606:PRO:HD3	2.01	0.60
1:A:221:GLU:HG2	1:A:280:ILE:HG12	1.81	0.60
1:F:452:ASN:OD1	1:F:453:LEU:N	2.33	0.60
1:K:83:LYS:HB2	1:K:515:GLU:HB3	1.83	0.60
1:C:297:HIS:CD2	1:C:298:ILE:HG13	2.35	0.60
1:I:309:PHE:HB3	1:I:312:ASP:HA	1.83	0.60
1:J:236:GLN:HB2	1:J:265:LYS:HD2	1.84	0.60
1:J:310:VAL:HG22	1:K:40:GLN:HG3	1.84	0.60
1:I:310:VAL:HG22	1:J:40:GLN:HG3	1.83	0.60
1:B:603:GLN:O	1:B:606:PRO:HD3	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:653:ILE:O	1:E:657:MET:HG2	2.02	0.60
1:G:164:LEU:HD12	1:G:166:ASP:HB3	1.84	0.60
1:H:250:ASP:OD1	1:H:251:ILE:N	2.34	0.60
1:I:250:ASP:OD1	1:I:251:ILE:N	2.34	0.60
1:J:83:LYS:HB2	1:J:515:GLU:HB3	1.83	0.60
1:K:434:THR:HG22	1:L:108:LYS:HE3	1.83	0.60
1:K:452:ASN:OD1	1:K:453:LEU:N	2.34	0.60
1:K:577:ILE:HG12	1:K:597:GLN:NE2	2.13	0.60
1:A:362:MET:HA	1:A:366:ASN:HB2	1.83	0.60
1:A:577:ILE:HD12	1:A:584:PRO:HB3	1.82	0.60
1:B:426:ASN:O	1:B:429:GLN:NE2	2.34	0.60
1:F:653:ILE:O	1:F:657:MET:HG2	2.02	0.60
1:I:221:GLU:HG2	1:I:280:ILE:HG12	1.83	0.60
1:J:433:ASP:O	1:J:437:GLN:N	2.30	0.60
1:A:526:SER:O	1:A:530:GLN:HG3	2.01	0.60
1:B:362:MET:HA	1:B:366:ASN:HB2	1.84	0.60
1:E:134:ASP:OD1	1:E:141:ASN:ND2	2.24	0.60
1:F:434:THR:HG22	1:G:108:LYS:HE3	1.83	0.60
1:B:37:ARG:NH1	1:B:48:TYR:OH	2.35	0.60
1:C:101:ASP:OD2	1:C:144:ILE:HG12	2.02	0.60
1:C:263:PHE:O	1:C:265:LYS:HG3	2.02	0.60
1:G:452:ASN:OD1	1:G:453:LEU:N	2.35	0.60
1:I:362:MET:HA	1:I:366:ASN:HB2	1.82	0.60
1:B:41:TRP:CH2	1:B:44:TRP:HB2	2.37	0.60
1:D:310:VAL:HG22	1:E:40:GLN:HG3	1.83	0.60
1:F:577:ILE:HD12	1:F:584:PRO:HB3	1.82	0.60
1:H:79:LEU:H	1:H:520:VAL:HA	1.67	0.60
1:L:117:GLU:HB3	1:L:123:VAL:HG23	1.82	0.60
1:B:577:ILE:HD12	1:B:584:PRO:HB3	1.83	0.59
1:B:653:ILE:O	1:B:657:MET:HG2	2.01	0.59
1:E:362:MET:HA	1:E:366:ASN:HB2	1.84	0.59
1:G:577:ILE:HD12	1:G:584:PRO:HB3	1.82	0.59
1:H:321:ARG:HA	1:H:324:LYS:HE2	1.84	0.59
1:I:363:TYR:OH	1:I:373:LEU:O	2.16	0.59
1:J:433:ASP:HA	1:J:436:ASN:HB3	1.84	0.59
1:E:526:SER:O	1:E:530:GLN:HG3	2.03	0.59
1:F:350:PHE:HB2	1:F:390:ALA:HB3	1.84	0.59
1:F:433:ASP:O	1:F:437:GLN:N	2.34	0.59
1:F:310:VAL:HG22	1:G:40:GLN:HG3	1.84	0.59
1:J:79:LEU:H	1:J:520:VAL:HA	1.67	0.59
1:J:434:THR:HG22	1:K:108:LYS:HE3	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:443:ASP:OD1	1:K:444:LEU:N	2.35	0.59
1:A:108:LYS:HE3	1:L:434:THR:HG22	1.84	0.59
1:A:236:GLN:HB2	1:A:265:LYS:HD2	1.84	0.59
1:D:410:SER:O	1:D:414:GLU:HG2	2.02	0.59
1:D:526:SER:O	1:D:530:GLN:HG3	2.01	0.59
1:D:603:GLN:O	1:D:606:PRO:HD3	2.02	0.59
1:E:236:GLN:HB2	1:E:265:LYS:HD2	1.84	0.59
1:D:667:GLU:HG2	1:E:666:ARG:NH1	2.18	0.59
1:H:434:THR:HG22	1:I:108:LYS:HE3	1.83	0.59
1:I:161:ASN:HD21	1:J:183:GLY:HA3	1.66	0.59
1:A:399:GLN:HA	1:A:402:ALA:HB3	1.83	0.59
1:C:221:GLU:HG2	1:C:280:ILE:HG12	1.82	0.59
1:D:353:PRO:HA	1:E:373:LEU:HD23	1.85	0.59
1:D:577:ILE:HD12	1:D:584:PRO:HB3	1.84	0.59
1:E:556:TYR:HB3	1:E:572:ALA:HB2	1.84	0.59
1:I:526:SER:O	1:I:530:GLN:HG3	2.02	0.59
1:A:662:GLN:HA	1:A:665:PHE:CD2	2.38	0.59
1:B:80:TYR:HD1	1:B:518:THR:HA	1.67	0.59
1:B:78:VAL:HG22	1:B:520:VAL:HG12	1.82	0.59
1:D:83:LYS:HE2	1:D:85:GLY:HA3	1.83	0.59
1:G:443:ASP:OD1	1:G:444:LEU:N	2.36	0.59
1:H:577:ILE:HD12	1:H:584:PRO:HB3	1.83	0.59
1:I:79:LEU:H	1:I:520:VAL:HA	1.68	0.59
1:J:221:GLU:HG2	1:J:280:ILE:HG12	1.84	0.59
1:L:437:GLN:HG2	1:L:520:VAL:HG21	1.84	0.59
1:L:603:GLN:O	1:L:606:PRO:HD3	2.01	0.59
1:B:232:ALA:HB1	1:B:268:GLU:HA	1.84	0.59
1:B:526:SER:O	1:B:530:GLN:HG3	2.03	0.59
1:C:156:VAL:HA	1:C:174:THR:O	2.02	0.59
1:C:96:GLY:O	1:C:100:THR:OG1	2.11	0.59
1:E:433:ASP:O	1:E:437:GLN:N	2.34	0.59
1:F:363:TYR:OH	1:F:373:LEU:O	2.16	0.59
1:F:443:ASP:OD1	1:F:444:LEU:N	2.36	0.59
1:G:526:SER:O	1:G:530:GLN:HG3	2.03	0.59
1:H:603:GLN:O	1:H:606:PRO:HD3	2.02	0.59
1:J:556:TYR:HB3	1:J:572:ALA:HB2	1.85	0.59
1:K:418:LEU:HD23	1:K:429:GLN:HB3	1.84	0.59
1:L:526:SER:O	1:L:530:GLN:HG3	2.03	0.59
1:A:156:VAL:HA	1:A:174:THR:O	2.03	0.59
1:C:443:ASP:OD1	1:C:444:LEU:N	2.35	0.59
1:H:161:ASN:HD21	1:I:183:GLY:HA3	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:526:SER:O	1:K:530:GLN:HG3	2.03	0.59
1:K:83:LYS:HE2	1:K:85:GLY:HA3	1.85	0.59
1:A:373:LEU:HD23	1:L:353:PRO:HA	1.85	0.59
1:A:443:ASP:OD1	1:A:444:LEU:N	2.36	0.59
1:H:556:TYR:HB3	1:H:572:ALA:HB2	1.85	0.59
1:I:434:THR:HG22	1:J:108:LYS:HE3	1.85	0.59
1:B:350:PHE:CD1	1:C:372:TYR:HB3	2.38	0.59
1:F:117:GLU:HB3	1:F:123:VAL:HG23	1.83	0.59
1:J:526:SER:O	1:J:530:GLN:HG3	2.03	0.59
1:K:410:SER:O	1:K:414:GLU:HG2	2.03	0.59
1:A:433:ASP:O	1:A:437:GLN:N	2.35	0.59
1:B:156:VAL:HA	1:B:174:THR:O	2.02	0.59
1:B:443:ASP:OD1	1:B:444:LEU:N	2.35	0.59
1:C:526:SER:O	1:C:530:GLN:HG3	2.02	0.59
1:D:309:PHE:HB3	1:D:312:ASP:HA	1.85	0.59
1:G:156:VAL:HA	1:G:174:THR:O	2.03	0.59
1:F:350:PHE:CD1	1:G:372:TYR:HB3	2.37	0.59
1:I:113:ILE:HG13	1:I:148:PRO:HB2	1.83	0.59
1:A:375:ASN:OD1	1:A:376:ARG:N	2.36	0.58
1:B:201:PHE:CD1	1:B:283:CYS:HB2	2.38	0.58
1:C:603:GLN:O	1:C:606:PRO:HD3	2.03	0.58
1:D:443:ASP:OD1	1:D:444:LEU:N	2.36	0.58
1:D:653:ILE:O	1:D:657:MET:HG2	2.02	0.58
1:E:41:TRP:CH2	1:E:44:TRP:HB2	2.37	0.58
1:G:83:LYS:HB2	1:G:515:GLU:HB3	1.84	0.58
1:A:363:TYR:OH	1:A:373:LEU:O	2.18	0.58
1:C:613:GLY:HA2	1:C:616:LEU:HD13	1.83	0.58
1:G:618:GLY:O	1:G:621:GLU:HB2	2.03	0.58
1:H:433:ASP:O	1:H:437:GLN:N	2.33	0.58
1:I:356:ILE:HG21	1:J:373:LEU:HD21	1.85	0.58
1:J:375:ASN:OD1	1:J:376:ARG:N	2.36	0.58
1:J:83:LYS:HE2	1:J:85:GLY:HA3	1.85	0.58
1:G:612:GLN:HA	1:G:615:LEU:CD1	2.32	0.58
1:I:653:ILE:O	1:I:657:MET:HG2	2.04	0.58
1:A:310:VAL:HG22	1:B:40:GLN:HG3	1.85	0.58
1:J:603:GLN:O	1:J:606:PRO:HD3	2.03	0.58
1:B:83:LYS:HB2	1:B:515:GLU:HB3	1.85	0.58
1:B:612:GLN:HA	1:B:615:LEU:CD1	2.33	0.58
1:C:589:GLU:O	1:C:593:LEU:HB2	2.04	0.58
1:D:434:THR:HG22	1:E:108:LYS:HE3	1.84	0.58
1:G:83:LYS:HE2	1:G:85:GLY:HA3	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:589:GLU:O	1:H:593:LEU:HB2	2.04	0.58
1:I:418:LEU:HD23	1:I:429:GLN:HB3	1.85	0.58
1:K:350:PHE:CD1	1:L:372:TYR:HB3	2.37	0.58
1:L:443:ASP:OD1	1:L:444:LEU:N	2.36	0.58
1:B:117:GLU:HB3	1:B:123:VAL:HG23	1.83	0.58
1:B:618:GLY:O	1:B:621:GLU:HB2	2.03	0.58
1:B:82:PRO:HB3	1:B:90:ALA:HB3	1.86	0.58
1:C:650:ILE:HA	1:C:653:ILE:HD12	1.86	0.58
1:D:613:GLY:O	1:D:616:LEU:HD12	2.04	0.58
1:E:87:ARG:HG2	1:E:89:ASP:H	1.67	0.58
1:F:193:LEU:HD21	1:F:288:LYS:HZ3	1.69	0.58
1:G:653:ILE:O	1:G:657:MET:HG2	2.03	0.58
1:H:526:SER:O	1:H:530:GLN:HG3	2.03	0.58
1:I:556:TYR:HB3	1:I:572:ALA:HB2	1.85	0.58
1:J:29:ALA:O	1:J:33:LEU:HB2	2.04	0.58
1:K:337:ASN:HA	1:K:340:ILE:HD12	1.86	0.58
1:K:618:GLY:O	1:K:621:GLU:HB2	2.03	0.58
1:C:236:GLN:HB2	1:C:265:LYS:HD2	1.85	0.58
1:C:321:ARG:HA	1:C:324:LYS:HE2	1.84	0.58
1:E:339:ASP:HA	1:E:342:ALA:HB3	1.84	0.58
1:D:350:PHE:CD1	1:E:372:TYR:HB3	2.38	0.58
1:F:362:MET:HA	1:F:366:ASN:HB2	1.85	0.58
1:F:526:SER:O	1:F:530:GLN:HG3	2.03	0.58
1:F:667:GLU:HG2	1:G:666:ARG:NH1	2.18	0.58
1:H:399:GLN:HA	1:H:402:ALA:HB3	1.85	0.58
1:A:603:GLN:O	1:A:606:PRO:HD3	2.02	0.58
1:D:639:VAL:O	1:D:643:ASN:ND2	2.37	0.58
1:E:263:PHE:O	1:E:265:LYS:HG3	2.04	0.58
1:H:410:SER:O	1:H:414:GLU:HG2	2.03	0.58
1:I:41:TRP:CH2	1:I:44:TRP:HB2	2.39	0.58
1:J:117:GLU:HB3	1:J:123:VAL:HG23	1.86	0.58
1:L:263:PHE:O	1:L:265:LYS:HG3	2.03	0.58
1:D:263:PHE:O	1:D:265:LYS:HG3	2.03	0.58
1:D:297:HIS:CD2	1:D:298:ILE:HG13	2.39	0.58
1:G:375:ASN:OD1	1:G:376:ARG:N	2.36	0.58
1:G:80:TYR:HD1	1:G:518:THR:HA	1.69	0.58
1:H:350:PHE:CD1	1:I:372:TYR:HB3	2.39	0.58
1:K:297:HIS:CD2	1:K:298:ILE:HG13	2.39	0.58
1:K:375:ASN:OD1	1:K:376:ARG:N	2.35	0.58
1:L:162:SER:HB2	1:L:170:ALA:HB2	1.84	0.58
1:L:639:VAL:O	1:L:643:ASN:ND2	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:434:THR:HG22	1:D:108:LYS:HE3	1.86	0.58
1:C:577:ILE:HG12	1:C:597:GLN:NE2	2.13	0.58
1:D:221:GLU:HG2	1:D:280:ILE:HG12	1.86	0.58
1:D:41:TRP:CH2	1:D:44:TRP:HB2	2.39	0.58
1:I:443:ASP:OD1	1:I:444:LEU:N	2.36	0.58
1:J:350:PHE:CD1	1:K:372:TYR:HB3	2.39	0.58
1:L:236:GLN:HB2	1:L:265:LYS:HD2	1.84	0.58
1:A:653:ILE:O	1:A:657:MET:HG2	2.04	0.57
1:B:375:ASN:OD1	1:B:376:ARG:N	2.37	0.57
1:B:83:LYS:HE2	1:B:85:GLY:HA3	1.85	0.57
1:E:443:ASP:OD1	1:E:444:LEU:N	2.37	0.57
1:G:603:GLN:O	1:G:606:PRO:HD3	2.04	0.57
1:I:399:GLN:HA	1:I:402:ALA:HB3	1.86	0.57
1:K:612:GLN:HA	1:K:615:LEU:CD1	2.34	0.57
1:A:117:GLU:HB3	1:A:123:VAL:HG23	1.86	0.57
1:A:659:LEU:HD22	1:L:664:GLU:HG3	1.87	0.57
1:C:511:ARG:HD3	1:C:513:ARG:HH22	1.68	0.57
1:C:639:VAL:O	1:C:643:ASN:ND2	2.36	0.57
1:D:275:ARG:NH2	1:D:293:ILE:O	2.30	0.57
1:D:80:TYR:HD1	1:D:518:THR:HA	1.69	0.57
1:E:96:GLY:O	1:E:100:THR:OG1	2.10	0.57
1:G:263:PHE:O	1:G:265:LYS:HG3	2.04	0.57
1:J:443:ASP:OD1	1:J:444:LEU:N	2.37	0.57
1:L:399:GLN:HA	1:L:402:ALA:HB3	1.87	0.57
1:A:127:ARG:HB3	1:A:147:GLU:HB2	1.87	0.57
1:B:433:ASP:O	1:B:437:GLN:N	2.31	0.57
1:D:433:ASP:O	1:D:437:GLN:N	2.32	0.57
1:E:511:ARG:HD3	1:E:513:ARG:HH22	1.69	0.57
1:F:603:GLN:O	1:F:606:PRO:HD3	2.05	0.57
1:G:363:TYR:OH	1:G:373:LEU:O	2.18	0.57
1:J:276:VAL:HG22	1:J:296:GLU:HA	1.85	0.57
1:K:162:SER:HB2	1:K:170:ALA:HB2	1.86	0.57
1:L:297:HIS:CD2	1:L:298:ILE:HG13	2.40	0.57
1:C:438:LEU:HD11	1:D:108:LYS:HD3	1.85	0.57
1:D:363:TYR:OH	1:D:373:LEU:O	2.14	0.57
1:F:350:PHE:N	1:F:390:ALA:O	2.31	0.57
1:J:410:SER:O	1:J:414:GLU:HG2	2.04	0.57
1:K:232:ALA:HB1	1:K:268:GLU:HA	1.86	0.57
1:L:232:ALA:HB1	1:L:268:GLU:HA	1.86	0.57
1:F:201:PHE:CD1	1:F:283:CYS:HB2	2.40	0.57
1:F:83:LYS:HE2	1:F:85:GLY:HA3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:113:ILE:HG13	1:K:148:PRO:HB2	1.85	0.57
1:D:83:LYS:HB2	1:D:515:GLU:HB3	1.85	0.57
1:E:321:ARG:HA	1:E:324:LYS:HE2	1.85	0.57
1:E:399:GLN:HA	1:E:402:ALA:HB3	1.86	0.57
1:G:236:GLN:HB2	1:G:265:LYS:HD2	1.87	0.57
1:H:83:LYS:HE2	1:H:85:GLY:HA3	1.86	0.57
1:I:528:LYS:HZ3	1:I:560:LEU:HD23	1.70	0.57
1:J:406:GLU:O	1:J:410:SER:OG	2.17	0.57
1:J:434:THR:HG21	1:K:72:ARG:HG3	1.86	0.57
1:K:556:TYR:HB3	1:K:572:ALA:HB2	1.86	0.57
1:L:375:ASN:OD1	1:L:376:ARG:N	2.36	0.57
1:A:276:VAL:HG22	1:A:296:GLU:HA	1.86	0.57
1:B:667:GLU:HG2	1:C:666:ARG:NH1	2.20	0.57
1:C:410:SER:O	1:C:414:GLU:HG2	2.04	0.57
1:E:221:GLU:HG2	1:E:280:ILE:HG12	1.86	0.57
1:E:664:GLU:OE2	1:F:666:ARG:NH2	2.38	0.57
1:F:193:LEU:HD21	1:F:288:LYS:NZ	2.19	0.57
1:F:80:TYR:HD1	1:F:518:THR:HA	1.69	0.57
1:G:232:ALA:HB1	1:G:268:GLU:HA	1.86	0.57
1:G:47:GLN:HB2	1:G:50:THR:HG21	1.87	0.57
1:G:613:GLY:HA2	1:G:616:LEU:CD1	2.33	0.57
1:H:232:ALA:HB1	1:H:268:GLU:HA	1.87	0.57
1:H:443:ASP:OD1	1:H:444:LEU:N	2.37	0.57
1:K:263:PHE:O	1:K:265:LYS:HG3	2.05	0.57
1:A:80:TYR:HD1	1:A:518:THR:HA	1.70	0.57
1:B:223:TYR:HE1	1:B:278:LYS:HG3	1.70	0.57
1:B:615:LEU:O	1:B:619:GLN:HG2	2.05	0.57
1:B:639:VAL:O	1:B:643:ASN:ND2	2.38	0.57
1:C:615:LEU:O	1:C:619:GLN:HG2	2.04	0.57
1:F:263:PHE:O	1:F:265:LYS:HG3	2.05	0.57
1:F:589:GLU:O	1:F:593:LEU:HB2	2.05	0.57
1:H:643:ASN:HA	1:H:646:ASN:ND2	2.20	0.57
1:I:117:GLU:HB3	1:I:123:VAL:HG23	1.87	0.57
1:J:270:GLN:NE2	1:J:271:ILE:O	2.38	0.57
1:J:653:ILE:O	1:J:657:MET:HG2	2.05	0.57
1:K:29:ALA:O	1:K:33:LEU:HB2	2.05	0.57
1:A:666:ARG:NH2	1:L:664:GLU:OE2	2.38	0.57
1:H:353:PRO:HA	1:I:373:LEU:HD23	1.87	0.56
1:H:667:GLU:HG2	1:I:666:ARG:NH1	2.19	0.56
1:J:263:PHE:O	1:J:265:LYS:HG3	2.05	0.56
1:A:613:GLY:O	1:A:616:LEU:HD13	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:612:GLN:HA	1:C:615:LEU:CD1	2.36	0.56
1:D:236:GLN:HB2	1:D:265:LYS:HD2	1.85	0.56
1:E:615:LEU:O	1:E:619:GLN:HG2	2.05	0.56
1:G:353:PRO:O	1:G:356:ILE:HG22	2.05	0.56
1:I:162:SER:HA	1:I:169:ASP:OD1	2.06	0.56
1:I:37:ARG:NH1	1:I:48:TYR:OH	2.38	0.56
1:I:615:LEU:O	1:I:619:GLN:HG2	2.05	0.56
1:I:650:ILE:HA	1:I:653:ILE:HD12	1.87	0.56
1:K:353:PRO:HA	1:L:373:LEU:HD23	1.87	0.56
1:B:577:ILE:HG21	1:B:593:LEU:HD13	1.87	0.56
1:C:433:ASP:O	1:C:437:GLN:N	2.35	0.56
1:D:353:PRO:O	1:D:356:ILE:HG22	2.05	0.56
1:C:350:PHE:CD1	1:D:372:TYR:HB3	2.39	0.56
1:D:426:ASN:O	1:D:429:GLN:NE2	2.39	0.56
1:C:667:GLU:HG2	1:D:666:ARG:NH1	2.20	0.56
1:F:236:GLN:HB2	1:F:265:LYS:HD2	1.87	0.56
1:H:375:ASN:OD1	1:H:376:ARG:N	2.36	0.56
1:I:433:ASP:O	1:I:437:GLN:N	2.37	0.56
1:J:232:ALA:HB1	1:J:268:GLU:HA	1.86	0.56
1:K:433:ASP:O	1:K:437:GLN:N	2.37	0.56
1:L:82:PRO:HB3	1:L:90:ALA:HB3	1.86	0.56
1:C:34:PHE:O	1:C:38:VAL:HG23	2.05	0.56
1:G:577:ILE:HG12	1:G:597:GLN:NE2	2.14	0.56
1:J:162:SER:HB2	1:J:170:ALA:HB2	1.86	0.56
1:J:711:GLN:OE1	1:K:712:ARG:NH1	2.38	0.56
1:A:589:GLU:O	1:A:593:LEU:HB2	2.05	0.56
1:C:375:ASN:OD1	1:C:376:ARG:N	2.37	0.56
1:C:386:THR:HG22	1:C:387:GLN:H	1.70	0.56
1:I:232:ALA:HB1	1:I:268:GLU:HA	1.87	0.56
1:B:113:ILE:HG13	1:B:148:PRO:HB2	1.88	0.56
1:E:82:PRO:HB3	1:E:90:ALA:HB3	1.87	0.56
1:G:276:VAL:HG22	1:G:296:GLU:HA	1.88	0.56
1:J:34:PHE:O	1:J:38:VAL:HG23	2.05	0.56
1:K:41:TRP:CH2	1:K:44:TRP:HB2	2.41	0.56
1:K:603:GLN:O	1:K:606:PRO:HD3	2.04	0.56
1:B:263:PHE:O	1:B:265:LYS:HG3	2.05	0.56
1:B:386:THR:HG22	1:B:387:GLN:H	1.70	0.56
1:B:511:ARG:HD3	1:B:513:ARG:HH22	1.71	0.56
1:E:618:GLY:O	1:E:621:GLU:HB2	2.06	0.56
1:F:41:TRP:CH2	1:F:44:TRP:HB2	2.41	0.56
1:H:201:PHE:CD1	1:H:283:CYS:HB2	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:276:VAL:HG22	1:I:296:GLU:HA	1.87	0.56
1:I:639:VAL:O	1:I:643:ASN:ND2	2.37	0.56
1:I:667:GLU:HG2	1:J:666:ARG:NH1	2.20	0.56
1:F:386:THR:HG22	1:F:387:GLN:H	1.71	0.56
1:J:577:ILE:HG21	1:J:593:LEU:HD13	1.87	0.56
1:A:193:LEU:HD21	1:A:288:LYS:NZ	2.21	0.56
1:D:386:THR:HG22	1:D:387:GLN:H	1.71	0.56
1:E:270:GLN:NE2	1:E:271:ILE:O	2.38	0.56
1:E:375:ASN:OD1	1:E:376:ARG:N	2.35	0.56
1:E:386:THR:HG22	1:E:387:GLN:H	1.70	0.56
1:E:639:VAL:O	1:E:643:ASN:ND2	2.38	0.56
1:G:309:PHE:HB3	1:G:312:ASP:HA	1.87	0.56
1:B:410:SER:O	1:B:414:GLU:HG2	2.06	0.56
1:D:577:ILE:HG12	1:D:597:GLN:NE2	2.16	0.56
1:E:356:ILE:HG21	1:F:373:LEU:HD21	1.87	0.56
1:G:272:LYS:O	1:H:134:ASP:HB2	2.06	0.56
1:H:236:GLN:HB2	1:H:265:LYS:CD	2.36	0.56
1:K:363:TYR:OH	1:K:373:LEU:O	2.18	0.56
1:L:410:SER:O	1:L:414:GLU:HG2	2.05	0.56
1:H:438:LEU:HD11	1:I:108:LYS:HD3	1.88	0.56
1:J:321:ARG:HA	1:J:324:LYS:HE2	1.87	0.56
1:J:426:ASN:O	1:J:429:GLN:NE2	2.39	0.56
1:J:639:VAL:O	1:J:643:ASN:ND2	2.37	0.56
1:K:201:PHE:CD1	1:K:283:CYS:HB2	2.41	0.56
1:B:220:ALA:CB	1:B:281:ILE:O	2.46	0.55
1:E:337:ASN:HA	1:E:340:ILE:HD12	1.88	0.55
1:F:321:ARG:HA	1:F:324:LYS:HE2	1.87	0.55
1:I:353:PRO:O	1:I:356:ILE:HG22	2.06	0.55
1:I:589:GLU:O	1:I:593:LEU:HB2	2.06	0.55
1:J:353:PRO:O	1:J:356:ILE:HG22	2.06	0.55
1:J:386:THR:HG22	1:J:387:GLN:H	1.70	0.55
1:K:386:THR:HG22	1:K:387:GLN:H	1.72	0.55
1:A:433:ASP:HA	1:A:436:ASN:HB3	1.87	0.55
1:B:335:SER:O	1:B:338:ALA:HB3	2.06	0.55
1:B:337:ASN:HA	1:B:340:ILE:HD12	1.88	0.55
1:C:577:ILE:HG21	1:C:593:LEU:HD13	1.86	0.55
1:D:433:ASP:HA	1:D:436:ASN:HB3	1.88	0.55
1:E:299:PRO:HG2	1:E:300:ILE:HD12	1.88	0.55
1:E:438:LEU:HD11	1:F:108:LYS:HD3	1.88	0.55
1:F:299:PRO:HG2	1:F:300:ILE:HD12	1.87	0.55
1:F:429:GLN:HA	1:F:432:PHE:HD2	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:438:LEU:HD11	1:G:108:LYS:HD3	1.87	0.55
1:F:618:GLY:O	1:F:621:GLU:HB2	2.05	0.55
1:G:643:ASN:HA	1:G:646:ASN:ND2	2.21	0.55
1:H:426:ASN:O	1:H:429:GLN:NE2	2.40	0.55
1:I:429:GLN:HA	1:I:432:PHE:HD2	1.72	0.55
1:L:386:THR:HG22	1:L:387:GLN:H	1.71	0.55
1:A:263:PHE:O	1:A:265:LYS:HG3	2.06	0.55
1:A:386:THR:HG22	1:A:387:GLN:H	1.71	0.55
1:A:426:ASN:O	1:A:429:GLN:NE2	2.39	0.55
1:D:350:PHE:N	1:D:390:ALA:O	2.32	0.55
1:D:612:GLN:HA	1:D:615:LEU:HG	1.88	0.55
1:C:664:GLU:HG3	1:D:659:LEU:HD22	1.88	0.55
1:E:276:VAL:HG22	1:E:296:GLU:HA	1.88	0.55
1:F:375:ASN:OD1	1:F:376:ARG:N	2.37	0.55
1:F:612:GLN:HA	1:F:615:LEU:CD1	2.35	0.55
1:G:386:THR:HG22	1:G:387:GLN:H	1.71	0.55
1:G:426:ASN:O	1:G:429:GLN:NE2	2.40	0.55
1:I:603:GLN:O	1:I:606:PRO:HD3	2.05	0.55
1:J:353:PRO:HA	1:K:373:LEU:HD23	1.89	0.55
1:B:236:GLN:HB2	1:B:265:LYS:HD2	1.89	0.55
1:B:643:ASN:HA	1:B:646:ASN:ND2	2.21	0.55
1:C:350:PHE:N	1:C:390:ALA:O	2.32	0.55
1:E:161:ASN:HD21	1:F:183:GLY:HA3	1.71	0.55
1:E:350:PHE:CD1	1:F:372:TYR:HB3	2.42	0.55
1:E:410:SER:O	1:E:414:GLU:HG2	2.06	0.55
1:F:232:ALA:HB1	1:F:268:GLU:HA	1.87	0.55
1:G:34:PHE:O	1:G:38:VAL:HG23	2.05	0.55
1:I:34:PHE:O	1:I:38:VAL:HG23	2.06	0.55
1:J:643:ASN:HA	1:J:646:ASN:ND2	2.21	0.55
1:D:375:ASN:OD1	1:D:376:ARG:N	2.36	0.55
1:E:193:LEU:HD21	1:E:288:LYS:NZ	2.22	0.55
1:J:309:PHE:HB3	1:J:312:ASP:HA	1.88	0.55
1:L:433:ASP:HA	1:L:436:ASN:HB3	1.88	0.55
1:A:232:ALA:HB1	1:A:268:GLU:HA	1.87	0.55
1:B:433:ASP:HA	1:B:436:ASN:HB3	1.88	0.55
1:D:27:ARG:HD3	1:D:313:LYS:HE3	1.88	0.55
1:D:556:TYR:HB3	1:D:572:ALA:HB2	1.88	0.55
1:D:643:ASN:HA	1:D:646:ASN:ND2	2.22	0.55
1:E:363:TYR:HE1	1:E:372:TYR:HA	1.70	0.55
1:H:263:PHE:O	1:H:265:LYS:HG3	2.05	0.55
1:K:438:LEU:HD11	1:L:108:LYS:HD3	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:276:VAL:HG22	1:L:296:GLU:HA	1.88	0.55
1:B:353:PRO:O	1:B:356:ILE:HG22	2.06	0.55
1:B:418:LEU:HD23	1:B:429:GLN:HB3	1.89	0.55
1:C:201:PHE:CD1	1:C:283:CYS:HB2	2.41	0.55
1:C:399:GLN:HA	1:C:402:ALA:HB3	1.88	0.55
1:D:117:GLU:HB3	1:D:123:VAL:HG23	1.88	0.55
1:G:325:ASP:O	1:G:328:ARG:HG2	2.07	0.55
1:H:615:LEU:O	1:H:619:GLN:HG2	2.07	0.55
1:H:639:VAL:O	1:H:642:GLN:HG2	2.07	0.55
1:J:272:LYS:O	1:K:134:ASP:HB2	2.06	0.55
1:L:528:LYS:NZ	1:L:559:LEU:O	2.40	0.55
1:B:589:GLU:O	1:B:593:LEU:HB2	2.07	0.55
1:D:511:ARG:HD3	1:D:513:ARG:HH22	1.71	0.55
1:E:426:ASN:O	1:E:429:GLN:NE2	2.38	0.55
1:E:353:PRO:HA	1:F:373:LEU:HD23	1.89	0.55
1:F:643:ASN:HA	1:F:646:ASN:ND2	2.21	0.55
1:G:350:PHE:CD1	1:H:372:TYR:HB3	2.41	0.55
1:I:32:ASP:O	1:I:35:PHE:HB2	2.07	0.55
1:J:418:LEU:HD23	1:J:429:GLN:HB3	1.89	0.55
1:K:193:LEU:HD21	1:K:288:LYS:NZ	2.22	0.55
1:A:612:GLN:HA	1:A:615:LEU:CD1	2.37	0.55
1:C:236:GLN:HB2	1:C:265:LYS:CD	2.36	0.55
1:D:589:GLU:O	1:D:593:LEU:HB2	2.06	0.55
1:I:433:ASP:O	1:I:436:ASN:HB3	2.07	0.55
1:I:612:GLN:HA	1:I:615:LEU:CD1	2.36	0.55
1:J:363:TYR:HE1	1:J:372:TYR:HA	1.72	0.55
1:K:309:PHE:HB3	1:K:312:ASP:HA	1.88	0.55
1:K:93:VAL:O	1:K:96:GLY:N	2.40	0.55
1:L:337:ASN:HA	1:L:340:ILE:HD12	1.89	0.55
1:L:589:GLU:O	1:L:593:LEU:HB2	2.06	0.55
1:A:309:PHE:HB3	1:A:312:ASP:HA	1.88	0.54
1:E:612:GLN:HA	1:E:615:LEU:CD1	2.37	0.54
1:F:536:LEU:HD23	1:F:539:LEU:HD12	1.88	0.54
1:H:276:VAL:HG22	1:H:296:GLU:HA	1.89	0.54
1:I:263:PHE:O	1:I:265:LYS:HG3	2.07	0.54
1:J:127:ARG:HB3	1:J:147:GLU:HB2	1.89	0.54
1:L:350:PHE:N	1:L:390:ALA:O	2.32	0.54
1:C:162:SER:OG	1:C:164:LEU:O	2.25	0.54
1:D:664:GLU:OE2	1:E:666:ARG:NH2	2.40	0.54
1:G:117:GLU:HB3	1:G:123:VAL:HG23	1.89	0.54
1:G:335:SER:O	1:G:338:ALA:HB3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:356:ILE:HG21	1:H:373:LEU:HD21	1.89	0.54
1:K:536:LEU:HD23	1:K:539:LEU:HD12	1.89	0.54
1:K:643:ASN:HA	1:K:646:ASN:ND2	2.22	0.54
1:L:201:PHE:CD1	1:L:283:CYS:HB2	2.42	0.54
1:D:156:VAL:HA	1:D:174:THR:O	2.07	0.54
1:D:34:PHE:O	1:D:38:VAL:HG23	2.07	0.54
1:G:193:LEU:HD21	1:G:288:LYS:NZ	2.22	0.54
1:G:350:PHE:HB2	1:G:390:ALA:HB3	1.88	0.54
1:G:615:LEU:O	1:G:619:GLN:HG2	2.07	0.54
1:H:353:PRO:O	1:H:356:ILE:HG22	2.07	0.54
1:I:386:THR:HG22	1:I:387:GLN:H	1.72	0.54
1:J:612:GLN:HA	1:J:615:LEU:CD1	2.36	0.54
1:L:577:ILE:HG12	1:L:597:GLN:NE2	2.17	0.54
1:A:307:TRP:HE1	1:A:314:GLU:HG2	1.71	0.54
1:B:236:GLN:HB2	1:B:265:LYS:CD	2.38	0.54
1:C:433:ASP:HA	1:C:436:ASN:HB3	1.89	0.54
1:C:618:GLY:O	1:C:621:GLU:HB2	2.07	0.54
1:D:236:GLN:HB2	1:D:265:LYS:CD	2.37	0.54
1:E:349:PRO:HG3	1:E:391:TYR:CZ	2.42	0.54
1:I:176:ILE:HD11	1:I:204:PRO:HB3	1.90	0.54
1:K:276:VAL:HG22	1:K:296:GLU:HA	1.90	0.54
1:L:309:PHE:HB3	1:L:312:ASP:HA	1.88	0.54
1:L:27:ARG:HD3	1:L:313:LYS:HE3	1.89	0.54
1:B:96:GLY:O	1:B:100:THR:OG1	2.08	0.54
1:D:193:LEU:HD21	1:D:288:LYS:NZ	2.23	0.54
1:D:348:LYS:HB2	1:E:372:TYR:CD2	2.43	0.54
1:E:78:VAL:HG22	1:E:520:VAL:HG12	1.90	0.54
1:F:236:GLN:HB2	1:F:265:LYS:CD	2.38	0.54
1:I:375:ASN:OD1	1:I:376:ARG:N	2.36	0.54
1:J:220:ALA:CB	1:J:281:ILE:O	2.43	0.54
1:J:399:GLN:HA	1:J:402:ALA:HB3	1.88	0.54
1:L:156:VAL:HA	1:L:174:THR:O	2.07	0.54
1:A:162:SER:HA	1:A:169:ASP:OD1	2.08	0.54
1:D:176:ILE:HD11	1:D:204:PRO:HB3	1.90	0.54
1:F:353:PRO:O	1:F:356:ILE:HG22	2.08	0.54
1:G:221:GLU:HG2	1:G:280:ILE:HG12	1.89	0.54
1:G:528:LYS:HZ3	1:G:560:LEU:HD23	1.72	0.54
1:I:410:SER:O	1:I:414:GLU:HG2	2.08	0.54
1:I:618:GLY:O	1:I:621:GLU:HB2	2.08	0.54
1:J:363:TYR:OH	1:J:373:LEU:O	2.16	0.54
1:B:399:GLN:HA	1:B:402:ALA:HB3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:350:PHE:HB2	1:E:390:ALA:HB3	1.89	0.54
1:F:309:PHE:HB3	1:F:312:ASP:HA	1.88	0.54
1:I:236:GLN:HB2	1:I:265:LYS:HD2	1.89	0.54
1:I:354:GLU:HG2	1:J:376:ARG:HD3	1.90	0.54
1:J:201:PHE:CD1	1:J:283:CYS:HB2	2.42	0.54
1:J:193:LEU:HD21	1:J:288:LYS:NZ	2.23	0.54
1:J:589:GLU:O	1:J:593:LEU:HB2	2.07	0.54
1:A:410:SER:O	1:A:414:GLU:HG2	2.07	0.54
1:A:643:ASN:HA	1:A:646:ASN:ND2	2.22	0.54
1:C:643:ASN:HA	1:C:646:ASN:ND2	2.22	0.54
1:G:337:ASN:HA	1:G:340:ILE:HD12	1.88	0.54
1:H:386:THR:HG22	1:H:387:GLN:H	1.73	0.54
1:I:335:SER:O	1:I:338:ALA:HB3	2.07	0.54
1:J:162:SER:HA	1:J:169:ASP:OD1	2.08	0.54
1:J:275:ARG:NH2	1:J:293:ILE:O	2.35	0.54
1:A:201:PHE:CD1	1:A:283:CYS:HB2	2.43	0.54
1:C:15:PHE:HA	1:C:18:ASP:HB3	1.90	0.54
1:C:418:LEU:HD23	1:C:429:GLN:HB3	1.88	0.54
1:C:426:ASN:O	1:C:429:GLN:NE2	2.41	0.54
1:E:201:PHE:CD1	1:E:283:CYS:HB2	2.43	0.54
1:E:83:LYS:HE2	1:E:85:GLY:HA3	1.89	0.54
1:J:32:ASP:O	1:J:35:PHE:HB2	2.07	0.54
1:K:589:GLU:O	1:K:593:LEU:HB2	2.08	0.54
1:K:653:ILE:O	1:K:657:MET:HG2	2.06	0.54
1:A:321:ARG:HA	1:A:324:LYS:HE2	1.89	0.54
1:A:353:PRO:O	1:A:356:ILE:HG22	2.08	0.54
1:B:34:PHE:O	1:B:38:VAL:HG23	2.08	0.54
1:D:350:PHE:HB2	1:D:390:ALA:HB3	1.88	0.54
1:F:337:ASN:HA	1:F:340:ILE:HD12	1.89	0.54
1:F:433:ASP:HA	1:F:436:ASN:HB3	1.89	0.54
1:H:337:ASN:HA	1:H:340:ILE:HD12	1.89	0.54
1:H:350:PHE:HB2	1:H:390:ALA:HB3	1.90	0.54
1:I:363:TYR:HE1	1:I:372:TYR:HA	1.73	0.54
1:K:426:ASN:O	1:K:429:GLN:NE2	2.41	0.54
1:C:335:SER:O	1:C:338:ALA:HB3	2.08	0.53
1:E:232:ALA:HB1	1:E:268:GLU:HA	1.89	0.53
1:E:309:PHE:HB3	1:E:312:ASP:HA	1.90	0.53
1:J:618:GLY:O	1:J:621:GLU:HB2	2.07	0.53
1:K:615:LEU:O	1:K:619:GLN:HG2	2.06	0.53
1:L:193:LEU:HD21	1:L:288:LYS:NZ	2.23	0.53
1:L:34:PHE:O	1:L:38:VAL:HG23	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:429:GLN:HA	1:L:432:PHE:HD2	1.73	0.53
1:E:236:GLN:HB2	1:E:265:LYS:CD	2.37	0.53
1:E:353:PRO:O	1:E:356:ILE:HG22	2.08	0.53
1:H:335:SER:O	1:H:338:ALA:HB3	2.08	0.53
1:H:272:LYS:O	1:I:134:ASP:HB2	2.08	0.53
1:J:528:LYS:HZ3	1:J:560:LEU:HD23	1.73	0.53
1:K:433:ASP:HA	1:K:436:ASN:HB3	1.90	0.53
1:A:235:TYR:HE1	1:A:264:ILE:HA	1.74	0.53
1:B:556:TYR:HB3	1:B:572:ALA:HB2	1.90	0.53
1:E:363:TYR:OH	1:E:373:LEU:O	2.20	0.53
1:E:643:ASN:HA	1:E:646:ASN:ND2	2.23	0.53
1:J:337:ASN:HA	1:J:340:ILE:HD12	1.90	0.53
1:L:350:PHE:HB2	1:L:390:ALA:HB3	1.90	0.53
1:L:618:GLY:O	1:L:621:GLU:HB2	2.08	0.53
1:A:433:ASP:O	1:A:436:ASN:HB3	2.08	0.53
1:E:335:SER:O	1:E:338:ALA:HB3	2.09	0.53
1:E:515:GLU:N	1:E:515:GLU:OE1	2.41	0.53
1:E:589:GLU:O	1:E:593:LEU:HB2	2.08	0.53
1:F:577:ILE:HG21	1:F:593:LEU:HD13	1.89	0.53
1:I:577:ILE:HG21	1:I:593:LEU:HD13	1.89	0.53
1:L:162:SER:HA	1:L:169:ASP:OD1	2.09	0.53
1:B:223:TYR:CE1	1:B:278:LYS:HG3	2.43	0.53
1:C:382:GLY:N	1:C:383:ASP:HA	2.23	0.53
1:E:528:LYS:NZ	1:E:559:LEU:O	2.39	0.53
1:F:276:VAL:HG22	1:F:296:GLU:HA	1.90	0.53
1:G:433:ASP:HA	1:G:436:ASN:HB3	1.91	0.53
1:I:643:ASN:HA	1:I:646:ASN:ND2	2.23	0.53
1:I:96:GLY:O	1:I:100:THR:OG1	2.11	0.53
1:A:87:ARG:HD3	1:A:89:ASP:HB2	1.90	0.53
1:B:193:LEU:HD21	1:B:288:LYS:NZ	2.23	0.53
1:C:101:ASP:OD1	1:C:101:ASP:N	2.42	0.53
1:D:618:GLY:O	1:D:621:GLU:HB2	2.08	0.53
1:F:156:VAL:HA	1:F:174:THR:O	2.08	0.53
1:F:31:ASN:O	1:F:35:PHE:HD2	1.91	0.53
1:I:87:ARG:HD3	1:I:89:ASP:HB2	1.89	0.53
1:K:32:ASP:O	1:K:35:PHE:HB2	2.09	0.53
1:K:399:GLN:HA	1:K:402:ALA:HB3	1.89	0.53
1:A:335:SER:O	1:A:338:ALA:HB3	2.08	0.53
1:C:131:ASP:OD1	1:C:132:TYR:N	2.42	0.53
1:D:528:LYS:NZ	1:D:559:LEU:O	2.40	0.53
1:F:410:SER:O	1:F:414:GLU:HG2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:201:PHE:CD1	1:G:283:CYS:HB2	2.44	0.53
1:H:528:LYS:HZ3	1:H:560:LEU:HD23	1.74	0.53
1:L:124:GLY:HA3	1:L:303:VAL:HG22	1.91	0.53
1:L:131:ASP:OD1	1:L:132:TYR:N	2.42	0.53
1:L:221:GLU:HG2	1:L:280:ILE:HG12	1.90	0.53
1:C:162:SER:HA	1:C:169:ASP:OD1	2.09	0.53
1:C:230:GLU:OE2	1:C:249:ARG:HG2	2.09	0.53
1:C:536:LEU:HD23	1:C:539:LEU:HD12	1.91	0.53
1:F:273:ARG:NE	1:F:296:GLU:OE2	2.42	0.53
1:F:78:VAL:HG22	1:F:520:VAL:HG12	1.90	0.53
1:H:363:TYR:HE1	1:H:372:TYR:HA	1.74	0.53
1:H:433:ASP:HA	1:H:436:ASN:HB3	1.91	0.53
1:J:27:ARG:HD3	1:J:313:LYS:HE3	1.89	0.53
1:B:15:PHE:HA	1:B:18:ASP:HB3	1.91	0.53
1:D:235:TYR:HE1	1:D:264:ILE:HA	1.74	0.53
1:H:309:PHE:HB3	1:H:312:ASP:HA	1.90	0.53
1:H:577:ILE:HG21	1:H:593:LEU:HD13	1.91	0.53
1:J:78:VAL:HG22	1:J:520:VAL:HG12	1.89	0.53
1:K:96:GLY:O	1:K:100:THR:OG1	2.13	0.53
1:A:536:LEU:HD23	1:A:539:LEU:HD12	1.91	0.53
1:B:515:GLU:N	1:B:515:GLU:OE1	2.42	0.53
1:D:230:GLU:OE2	1:D:249:ARG:HG2	2.09	0.53
1:F:538:LEU:O	1:F:542:THR:OG1	2.27	0.53
1:G:353:PRO:HA	1:H:373:LEU:HD23	1.91	0.53
1:I:80:TYR:HD1	1:I:518:THR:HA	1.74	0.53
1:I:272:LYS:O	1:J:134:ASP:HB2	2.09	0.53
1:L:168:SER:HA	1:L:297:HIS:NE2	2.24	0.53
1:C:350:PHE:HB2	1:C:390:ALA:HB3	1.91	0.52
1:E:162:SER:HA	1:E:169:ASP:OD1	2.09	0.52
1:F:83:LYS:HB2	1:F:515:GLU:HB3	1.91	0.52
1:F:528:LYS:NZ	1:F:559:LEU:O	2.42	0.52
1:G:536:LEU:HD23	1:G:539:LEU:HD12	1.91	0.52
1:H:618:GLY:O	1:H:621:GLU:HB2	2.09	0.52
1:I:201:PHE:CD1	1:I:283:CYS:HB2	2.44	0.52
1:J:382:GLY:N	1:J:383:ASP:HA	2.24	0.52
1:J:438:LEU:HD11	1:K:108:LYS:HD3	1.91	0.52
1:L:382:GLY:N	1:L:383:ASP:HA	2.24	0.52
1:C:299:PRO:HG2	1:C:300:ILE:HD12	1.90	0.52
1:G:399:GLN:HA	1:G:402:ALA:HB3	1.91	0.52
1:G:438:LEU:HD11	1:H:108:LYS:HD3	1.91	0.52
1:A:615:LEU:O	1:A:619:GLN:HG2	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:299:PRO:HG2	1:B:300:ILE:HD12	1.92	0.52
1:F:15:PHE:HA	1:F:18:ASP:HB3	1.91	0.52
1:I:101:ASP:OD2	1:I:144:ILE:HG12	2.09	0.52
1:J:335:SER:O	1:J:338:ALA:HB3	2.09	0.52
1:L:335:SER:O	1:L:338:ALA:HB3	2.09	0.52
1:A:108:LYS:HD3	1:L:438:LEU:HD11	1.91	0.52
1:A:363:TYR:HE1	1:A:372:TYR:HA	1.74	0.52
1:E:159:ASP:C	1:E:161:ASN:H	2.13	0.52
1:F:252:LYS:HD2	1:F:256:ASP:HB3	1.91	0.52
1:F:325:ASP:O	1:F:328:ARG:HG2	2.09	0.52
1:A:235:TYR:CE1	1:A:264:ILE:HA	2.44	0.52
1:A:618:GLY:O	1:A:621:GLU:HB2	2.09	0.52
1:D:201:PHE:CD1	1:D:283:CYS:HB2	2.45	0.52
1:K:353:PRO:O	1:K:356:ILE:HG22	2.09	0.52
1:A:628:GLN:O	1:A:632:LEU:HB2	2.10	0.52
1:A:663:SER:HA	1:A:666:ARG:NE	2.24	0.52
1:C:232:ALA:HB1	1:C:268:GLU:HA	1.90	0.52
1:C:161:ASN:HD21	1:D:183:GLY:HA3	1.73	0.52
1:D:276:VAL:HG22	1:D:296:GLU:HA	1.90	0.52
1:D:515:GLU:OE1	1:D:515:GLU:N	2.42	0.52
1:E:162:SER:HB2	1:E:170:ALA:HB2	1.90	0.52
1:E:433:ASP:HA	1:E:436:ASN:HB3	1.92	0.52
1:H:41:TRP:CH2	1:H:44:TRP:HB2	2.44	0.52
1:I:156:VAL:HA	1:I:174:THR:O	2.08	0.52
1:I:577:ILE:HG12	1:I:597:GLN:NE2	2.16	0.52
1:K:53:TYR:O	1:K:54:ARG:NH1	2.41	0.52
1:L:299:PRO:HG2	1:L:300:ILE:HD12	1.90	0.52
1:L:321:ARG:HA	1:L:324:LYS:HE2	1.91	0.52
1:L:615:LEU:O	1:L:619:GLN:HG2	2.10	0.52
1:B:159:ASP:C	1:B:161:ASN:H	2.13	0.52
1:H:156:VAL:HA	1:H:174:THR:O	2.09	0.52
1:K:433:ASP:O	1:K:436:ASN:HB3	2.10	0.52
1:L:353:PRO:O	1:L:356:ILE:HG22	2.09	0.52
1:L:363:TYR:HE1	1:L:372:TYR:HA	1.75	0.52
1:L:515:GLU:N	1:L:515:GLU:OE1	2.43	0.52
1:A:15:PHE:HA	1:A:18:ASP:HB3	1.92	0.52
1:A:429:GLN:HA	1:A:432:PHE:HD2	1.75	0.52
1:F:615:LEU:O	1:F:619:GLN:HG2	2.10	0.52
1:H:273:ARG:NE	1:H:296:GLU:OE2	2.43	0.52
1:H:536:LEU:HD23	1:H:539:LEU:HD12	1.92	0.52
1:J:168:SER:HA	1:J:297:HIS:NE2	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:377:THR:HA	1:J:383:ASP:OD2	2.10	0.52
1:L:536:LEU:HD23	1:L:539:LEU:HD12	1.90	0.52
1:A:338:ALA:O	1:A:342:ALA:N	2.41	0.52
1:A:78:VAL:HG22	1:A:520:VAL:HG12	1.92	0.52
1:B:127:ARG:HB3	1:B:147:GLU:HB2	1.91	0.52
1:D:124:GLY:HA3	1:D:303:VAL:HG22	1.92	0.52
1:D:615:LEU:O	1:D:619:GLN:HG2	2.10	0.52
1:D:78:VAL:HG22	1:D:520:VAL:HG12	1.92	0.52
1:E:429:GLN:HA	1:E:432:PHE:HD2	1.75	0.52
1:F:162:SER:HB2	1:F:170:ALA:HB2	1.92	0.52
1:H:299:PRO:HG2	1:H:300:ILE:HD12	1.91	0.52
1:H:78:VAL:HG22	1:H:520:VAL:HG12	1.91	0.52
1:I:193:LEU:HD21	1:I:288:LYS:NZ	2.25	0.52
1:J:80:TYR:HD1	1:J:518:THR:HA	1.74	0.52
1:L:127:ARG:HB3	1:L:147:GLU:HB2	1.90	0.52
1:D:127:ARG:HB3	1:D:147:GLU:HB2	1.92	0.52
1:D:577:ILE:HG21	1:D:593:LEU:HD13	1.91	0.52
1:E:382:GLY:N	1:E:383:ASP:HA	2.25	0.52
1:I:299:PRO:HG2	1:I:300:ILE:HD12	1.92	0.52
1:J:355:GLN:HG2	1:K:376:ARG:NH1	2.22	0.52
1:K:82:PRO:HB3	1:K:90:ALA:HB3	1.92	0.52
1:L:612:GLN:HA	1:L:615:LEU:CD1	2.39	0.52
1:A:27:ARG:HH11	1:A:313:LYS:HE3	1.74	0.51
1:B:101:ASP:OD2	1:B:144:ILE:HG12	2.10	0.51
1:B:152:ALA:HA	1:B:155:HIS:HB2	1.92	0.51
1:B:433:ASP:O	1:B:436:ASN:HB3	2.11	0.51
1:B:353:PRO:HA	1:C:373:LEU:HD23	1.91	0.51
1:D:303:VAL:HB	1:D:439:ASN:ND2	2.25	0.51
1:F:363:TYR:HE1	1:F:372:TYR:HA	1.75	0.51
1:F:382:GLY:N	1:F:383:ASP:HA	2.25	0.51
1:I:230:GLU:OE2	1:I:249:ARG:HG2	2.09	0.51
1:A:418:LEU:HD23	1:A:429:GLN:HB3	1.92	0.51
1:A:613:GLY:HA2	1:A:616:LEU:CD1	2.32	0.51
1:C:276:VAL:HG22	1:C:296:GLU:HA	1.92	0.51
1:C:303:VAL:HB	1:C:439:ASN:ND2	2.26	0.51
1:C:528:LYS:NZ	1:C:559:LEU:O	2.38	0.51
1:G:299:PRO:HG2	1:G:300:ILE:HD12	1.92	0.51
1:J:299:PRO:HG2	1:J:300:ILE:HD12	1.92	0.51
1:L:643:ASN:HA	1:L:646:ASN:ND2	2.24	0.51
1:A:348:LYS:HB2	1:B:372:TYR:CD2	2.46	0.51
1:D:321:ARG:HA	1:D:324:LYS:HE2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:32:ASP:O	1:D:35:PHE:HB2	2.10	0.51
1:D:353:PRO:HD3	1:E:374:LEU:O	2.10	0.51
1:C:646:ASN:HA	1:D:644:GLN:HG2	1.91	0.51
1:H:324:LYS:O	1:H:327:GLN:HB2	2.10	0.51
1:I:273:ARG:NE	1:I:296:GLU:OE2	2.43	0.51
1:K:127:ARG:HB3	1:K:147:GLU:HB2	1.91	0.51
1:L:32:ASP:O	1:L:35:PHE:HB2	2.11	0.51
1:C:151:SER:HB2	1:C:155:HIS:CE1	2.46	0.51
1:B:664:GLU:OE2	1:C:666:ARG:NH2	2.43	0.51
1:E:586:THR:CG2	1:E:590:GLN:HE22	2.24	0.51
1:B:131:ASP:OD1	1:B:132:TYR:N	2.44	0.51
1:B:281:ILE:HG12	1:B:287:LEU:H	1.74	0.51
1:C:106:THR:HG23	1:C:146:ARG:HE	1.75	0.51
1:C:252:LYS:HD2	1:C:256:ASP:HB3	1.91	0.51
1:E:613:GLY:HA2	1:E:616:LEU:CD1	2.39	0.51
1:G:131:ASP:OD1	1:G:132:TYR:N	2.44	0.51
1:H:417:THR:O	1:H:418:LEU:HD12	2.11	0.51
1:H:515:GLU:OE1	1:H:515:GLU:N	2.44	0.51
1:I:348:LYS:HB2	1:J:372:TYR:CD2	2.46	0.51
1:I:587:PRO:HD2	1:I:589:GLU:HG3	1.92	0.51
1:K:162:SER:HA	1:K:169:ASP:OD1	2.11	0.51
1:K:299:PRO:HG2	1:K:300:ILE:HD12	1.91	0.51
1:K:34:PHE:O	1:K:38:VAL:HG23	2.10	0.51
1:L:325:ASP:O	1:L:328:ARG:HG2	2.11	0.51
1:K:667:GLU:HG2	1:L:666:ARG:NH1	2.25	0.51
1:A:438:LEU:HD11	1:B:108:LYS:HD3	1.92	0.51
1:B:613:GLY:CA	1:B:616:LEU:HD13	2.33	0.51
1:F:27:ARG:HH11	1:F:313:LYS:HE3	1.76	0.51
1:F:433:ASP:O	1:F:436:ASN:HB3	2.11	0.51
1:G:363:TYR:HE1	1:G:372:TYR:HA	1.75	0.51
1:G:410:SER:O	1:G:414:GLU:HG2	2.11	0.51
1:H:32:ASP:O	1:H:35:PHE:HB2	2.11	0.51
1:A:325:ASP:O	1:A:328:ARG:HG2	2.11	0.51
1:D:131:ASP:OD1	1:D:132:TYR:N	2.43	0.51
1:D:299:PRO:HG2	1:D:300:ILE:HD12	1.93	0.51
1:E:433:ASP:O	1:E:436:ASN:HB3	2.10	0.51
1:F:335:SER:O	1:F:338:ALA:HB3	2.10	0.51
1:G:586:THR:CG2	1:G:590:GLN:HE22	2.24	0.51
1:I:382:GLY:N	1:I:383:ASP:HA	2.25	0.51
1:J:159:ASP:C	1:J:161:ASN:H	2.14	0.51
1:J:303:VAL:HB	1:J:439:ASN:ND2	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:220:ALA:CB	1:K:281:ILE:O	2.46	0.51
1:A:34:PHE:O	1:A:38:VAL:HG23	2.10	0.51
1:B:642:GLN:HA	1:B:645:LEU:HD12	1.92	0.51
1:D:161:ASN:ND2	1:E:183:GLY:HA3	2.25	0.51
1:F:101:ASP:OD2	1:F:144:ILE:HG12	2.11	0.51
1:F:653:ILE:HG12	1:G:648:ALA:HA	1.92	0.51
1:G:162:SER:HA	1:G:169:ASP:OD1	2.10	0.51
1:G:273:ARG:NE	1:G:296:GLU:OE2	2.44	0.51
1:H:101:ASP:OD2	1:H:144:ILE:HG12	2.11	0.51
1:H:34:PHE:O	1:H:38:VAL:HG23	2.11	0.51
1:J:325:ASP:O	1:J:328:ARG:HG2	2.10	0.51
1:J:429:GLN:HA	1:J:432:PHE:HD2	1.75	0.51
1:K:27:ARG:HD3	1:K:313:LYS:HE3	1.93	0.51
1:C:272:LYS:O	1:D:134:ASP:HB2	2.10	0.51
1:D:159:ASP:C	1:D:161:ASN:H	2.13	0.51
1:D:273:ARG:NE	1:D:296:GLU:OE2	2.44	0.51
1:D:335:SER:O	1:D:338:ALA:HB3	2.10	0.51
1:D:355:GLN:HG2	1:E:376:ARG:NH1	2.20	0.51
1:E:559:LEU:HB3	1:E:565:VAL:HB	1.92	0.51
1:G:382:GLY:N	1:G:383:ASP:HA	2.25	0.51
1:G:303:VAL:HB	1:G:439:ASN:ND2	2.26	0.51
1:H:223:TYR:CE1	1:H:278:LYS:HG3	2.46	0.51
1:J:156:VAL:HA	1:J:174:THR:O	2.10	0.51
1:L:577:ILE:HG21	1:L:593:LEU:HD13	1.92	0.51
1:A:434:THR:HG21	1:B:72:ARG:HG3	1.92	0.51
1:C:309:PHE:HB3	1:C:312:ASP:HA	1.93	0.51
1:E:307:TRP:HE1	1:E:314:GLU:HG2	1.75	0.51
1:G:577:ILE:HG21	1:G:593:LEU:HD13	1.91	0.51
1:H:162:SER:HA	1:H:169:ASP:OD1	2.11	0.51
1:H:363:TYR:OH	1:H:373:LEU:O	2.17	0.51
1:J:354:GLU:HG2	1:K:376:ARG:HD3	1.92	0.51
1:K:156:VAL:HA	1:K:174:THR:O	2.11	0.51
1:K:325:ASP:O	1:K:328:ARG:HG2	2.10	0.51
1:K:78:VAL:HG22	1:K:520:VAL:HG12	1.92	0.51
1:L:628:GLN:O	1:L:632:LEU:HB2	2.10	0.51
1:A:273:ARG:NE	1:A:296:GLU:OE2	2.44	0.50
1:B:24:GLU:OE1	1:B:24:GLU:N	2.44	0.50
1:B:273:ARG:NE	1:B:296:GLU:OE2	2.44	0.50
1:E:228:LYS:HB2	1:E:275:ARG:HB3	1.93	0.50
1:E:27:ARG:HD3	1:E:313:LYS:HE3	1.92	0.50
1:E:355:GLN:HA	1:E:375:ASN:HB3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:161:ASN:ND2	1:J:183:GLY:HA3	2.26	0.50
1:I:236:GLN:HB2	1:I:265:LYS:CD	2.41	0.50
1:I:350:PHE:CD1	1:J:372:TYR:HB3	2.46	0.50
1:I:417:THR:O	1:I:418:LEU:HD12	2.11	0.50
1:J:587:PRO:HD2	1:J:589:GLU:HG3	1.93	0.50
1:J:353:PRO:HD3	1:K:374:LEU:O	2.11	0.50
1:K:577:ILE:HG21	1:K:593:LEU:HD13	1.92	0.50
1:J:664:GLU:HG3	1:K:659:LEU:HD22	1.93	0.50
1:L:53:TYR:O	1:L:54:ARG:NH1	2.43	0.50
1:B:536:LEU:HD23	1:B:539:LEU:HD12	1.94	0.50
1:E:156:VAL:HA	1:E:174:THR:O	2.11	0.50
1:H:348:LYS:HB2	1:I:372:TYR:CD2	2.46	0.50
1:K:159:ASP:C	1:K:161:ASN:H	2.15	0.50
1:K:223:TYR:CE1	1:K:278:LYS:HG3	2.45	0.50
1:L:236:GLN:HB2	1:L:265:LYS:CD	2.40	0.50
1:A:655:ASN:ND2	1:L:657:MET:SD	2.85	0.50
1:B:162:SER:OG	1:B:164:LEU:O	2.30	0.50
1:B:349:PRO:HG3	1:B:391:TYR:CZ	2.47	0.50
1:D:382:GLY:N	1:D:383:ASP:HA	2.25	0.50
1:E:32:ASP:O	1:E:35:PHE:HB2	2.11	0.50
1:G:168:SER:HA	1:G:297:HIS:NE2	2.26	0.50
1:G:667:GLU:HG2	1:H:666:ARG:NH1	2.26	0.50
1:J:615:LEU:O	1:J:619:GLN:HG2	2.10	0.50
1:K:417:THR:O	1:K:418:LEU:HD12	2.12	0.50
1:A:101:ASP:OD2	1:A:144:ILE:HG12	2.11	0.50
1:B:382:GLY:N	1:B:383:ASP:HA	2.25	0.50
1:B:434:THR:HG21	1:C:72:ARG:HG3	1.91	0.50
1:B:663:SER:HA	1:B:666:ARG:NE	2.23	0.50
1:D:349:PRO:HG3	1:D:391:TYR:CZ	2.46	0.50
1:D:418:LEU:HD23	1:D:429:GLN:HB3	1.93	0.50
1:E:325:ASP:O	1:E:328:ARG:HG2	2.10	0.50
1:G:140:ASN:HB3	1:G:455:THR:OG1	2.11	0.50
1:H:131:ASP:OD1	1:H:132:TYR:N	2.44	0.50
1:J:559:LEU:HB3	1:J:565:VAL:HB	1.94	0.50
1:J:667:GLU:HG2	1:K:666:ARG:NH1	2.26	0.50
1:L:349:PRO:HG3	1:L:391:TYR:CZ	2.46	0.50
1:C:444:LEU:O	1:C:447:TYR:HB3	2.12	0.50
1:E:34:PHE:O	1:E:38:VAL:HG23	2.12	0.50
1:F:168:SER:HA	1:F:297:HIS:NE2	2.27	0.50
1:H:29:ALA:O	1:H:33:LEU:HB2	2.12	0.50
1:I:343:ARG:HH22	1:K:368:ASP:HA	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:581:VAL:HG22	1:K:567:MET:HB2	1.94	0.50
1:L:159:ASP:C	1:L:161:ASN:H	2.14	0.50
1:C:436:ASN:HA	1:C:439:ASN:ND2	2.27	0.50
1:C:586:THR:CG2	1:C:590:GLN:HE22	2.25	0.50
1:D:278:LYS:HE2	1:D:280:ILE:HD11	1.93	0.50
1:D:55:GLY:H	1:D:335:SER:HG	1.60	0.50
1:E:434:THR:HG21	1:F:72:ARG:HG3	1.94	0.50
1:F:204:PRO:HD3	1:F:218:GLN:HG2	1.94	0.50
1:H:230:GLU:OE2	1:H:249:ARG:HG2	2.11	0.50
1:I:321:ARG:HA	1:I:324:LYS:HE2	1.94	0.50
1:J:101:ASP:OD2	1:J:144:ILE:HG12	2.11	0.50
1:K:228:LYS:HB2	1:K:275:ARG:HB3	1.93	0.50
1:K:363:TYR:HE1	1:K:372:TYR:HA	1.76	0.50
1:K:62:PRO:HA	1:K:65:ARG:HH21	1.76	0.50
1:L:433:ASP:O	1:L:436:ASN:HB3	2.12	0.50
1:A:124:GLY:HA3	1:A:303:VAL:HG22	1.93	0.50
1:A:515:GLU:OE1	1:A:515:GLU:N	2.45	0.50
1:B:320:VAL:O	1:B:323:THR:OG1	2.18	0.50
1:B:338:ALA:O	1:B:342:ALA:N	2.43	0.50
1:B:272:LYS:O	1:C:134:ASP:HB2	2.12	0.50
1:C:273:ARG:NE	1:C:296:GLU:OE2	2.44	0.50
1:C:29:ALA:O	1:C:33:LEU:HB2	2.11	0.50
1:E:101:ASP:OD2	1:E:144:ILE:HG12	2.12	0.50
1:D:272:LYS:O	1:E:134:ASP:HB2	2.12	0.50
1:E:168:SER:HA	1:E:297:HIS:NE2	2.26	0.50
1:E:230:GLU:OE2	1:E:249:ARG:HG2	2.12	0.50
1:F:27:ARG:HD3	1:F:313:LYS:HE3	1.94	0.50
1:F:140:ASN:HB3	1:F:455:THR:OG1	2.12	0.50
1:I:131:ASP:OD1	1:I:132:TYR:N	2.44	0.50
1:J:236:GLN:HB2	1:J:265:LYS:CD	2.41	0.50
1:J:515:GLU:N	1:J:515:GLU:OE1	2.45	0.50
1:A:24:GLU:OE1	1:A:24:GLU:N	2.44	0.50
1:C:193:LEU:HD21	1:C:288:LYS:NZ	2.26	0.50
1:E:127:ARG:HB3	1:E:147:GLU:HB2	1.93	0.50
1:E:273:ARG:NE	1:E:296:GLU:OE2	2.44	0.50
1:G:24:GLU:OE1	1:G:24:GLU:N	2.45	0.50
1:H:377:THR:HA	1:H:383:ASP:OD2	2.12	0.50
1:I:127:ARG:HB3	1:I:147:GLU:HB2	1.94	0.50
1:J:131:ASP:OD1	1:J:132:TYR:N	2.45	0.50
1:K:24:GLU:N	1:K:24:GLU:OE1	2.45	0.50
1:A:120:GLU:HA	1:A:320:VAL:HB	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:162:SER:HA	1:B:169:ASP:OD1	2.12	0.50
1:B:438:LEU:HD11	1:C:108:LYS:HD3	1.94	0.50
1:B:528:LYS:HZ3	1:B:560:LEU:HD23	1.77	0.50
1:D:680:SER:O	1:D:683:ALA:HB3	2.11	0.50
1:I:235:TYR:HE1	1:I:264:ILE:HA	1.77	0.50
1:K:515:GLU:OE1	1:K:515:GLU:N	2.45	0.50
1:L:24:GLU:N	1:L:24:GLU:OE1	2.45	0.50
1:B:303:VAL:HB	1:B:439:ASN:ND2	2.27	0.49
1:C:417:THR:O	1:C:418:LEU:HD12	2.12	0.49
1:D:101:ASP:OD2	1:D:144:ILE:HG12	2.12	0.49
1:D:235:TYR:CE1	1:D:264:ILE:HA	2.47	0.49
1:E:363:TYR:CE1	1:E:372:TYR:HA	2.47	0.49
1:G:176:ILE:HD11	1:G:204:PRO:HB3	1.93	0.49
1:J:230:GLU:OE2	1:J:249:ARG:HG2	2.11	0.49
1:J:528:LYS:NZ	1:J:559:LEU:O	2.43	0.49
1:L:307:TRP:HE1	1:L:314:GLU:HG2	1.77	0.49
1:L:78:VAL:HG22	1:L:520:VAL:HG12	1.93	0.49
1:A:161:ASN:HD21	1:B:183:GLY:HA3	1.77	0.49
1:A:299:PRO:HG2	1:A:300:ILE:HD12	1.93	0.49
1:B:201:PHE:HD1	1:B:283:CYS:HB2	1.77	0.49
1:B:363:TYR:HE1	1:B:372:TYR:HA	1.77	0.49
1:F:127:ARG:HB3	1:F:147:GLU:HB2	1.94	0.49
1:F:45:LEU:HG	1:F:46:SER:H	1.76	0.49
1:E:664:GLU:HG3	1:F:659:LEU:HD22	1.92	0.49
1:F:161:ASN:HD21	1:G:183:GLY:HA3	1.78	0.49
1:G:248:LYS:HE3	1:G:252:LYS:HB2	1.93	0.49
1:F:348:LYS:HB2	1:G:372:TYR:CD2	2.48	0.49
1:H:220:ALA:CB	1:H:281:ILE:O	2.48	0.49
1:I:663:SER:O	1:I:666:ARG:HG3	2.12	0.49
1:J:348:LYS:HB2	1:K:372:TYR:CD2	2.46	0.49
1:A:168:SER:HA	1:A:297:HIS:NE2	2.26	0.49
1:A:236:GLN:HG2	1:A:244:VAL:H	1.76	0.49
1:C:657:MET:SD	1:D:655:ASN:ND2	2.85	0.49
1:D:338:ALA:O	1:D:342:ALA:N	2.45	0.49
1:D:536:LEU:HD23	1:D:539:LEU:HD12	1.94	0.49
1:D:53:TYR:O	1:D:54:ARG:NH1	2.43	0.49
1:D:576:LEU:O	1:D:581:VAL:HG12	2.12	0.49
1:F:223:TYR:HE1	1:F:278:LYS:HG3	1.78	0.49
1:F:34:PHE:O	1:F:38:VAL:HG23	2.13	0.49
1:G:162:SER:OG	1:G:164:LEU:O	2.31	0.49
1:G:589:GLU:O	1:G:593:LEU:HB2	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:338:ALA:O	1:I:342:ALA:N	2.45	0.49
1:I:80:TYR:CD1	1:I:444:LEU:HD21	2.47	0.49
1:J:350:PHE:HB2	1:J:390:ALA:HB3	1.94	0.49
1:K:106:THR:HG23	1:K:146:ARG:HE	1.77	0.49
1:K:622:LEU:O	1:K:626:GLN:HG3	2.11	0.49
1:L:228:LYS:HB2	1:L:275:ARG:HB3	1.94	0.49
1:A:159:ASP:C	1:A:161:ASN:H	2.14	0.49
1:B:78:VAL:HA	1:B:520:VAL:HA	1.92	0.49
1:D:433:ASP:O	1:D:436:ASN:HB3	2.13	0.49
1:E:348:LYS:HB2	1:F:372:TYR:CD2	2.47	0.49
1:F:528:LYS:HZ3	1:F:560:LEU:HD23	1.78	0.49
1:G:236:GLN:HB2	1:G:265:LYS:CD	2.43	0.49
1:H:15:PHE:HA	1:H:18:ASP:HB3	1.94	0.49
1:H:354:GLU:HG2	1:I:376:ARG:HD3	1.93	0.49
1:I:433:ASP:HA	1:I:436:ASN:HB3	1.93	0.49
1:J:176:ILE:HD11	1:J:204:PRO:HB3	1.94	0.49
1:K:586:THR:CG2	1:K:590:GLN:HE22	2.24	0.49
1:L:417:THR:O	1:L:418:LEU:HD12	2.12	0.49
1:A:32:ASP:O	1:A:35:PHE:HB2	2.12	0.49
1:C:337:ASN:HA	1:C:340:ILE:HD12	1.95	0.49
1:C:353:PRO:O	1:C:356:ILE:HG22	2.11	0.49
1:B:348:LYS:HB2	1:C:372:TYR:CD2	2.48	0.49
1:F:426:ASN:O	1:F:429:GLN:NE2	2.44	0.49
1:F:352:TRP:CB	1:G:376:ARG:HD2	2.39	0.49
1:G:528:LYS:NZ	1:G:559:LEU:O	2.42	0.49
1:H:201:PHE:HD1	1:H:283:CYS:HB2	1.77	0.49
1:L:101:ASP:OD2	1:L:144:ILE:HG12	2.12	0.49
1:K:348:LYS:HB2	1:L:372:TYR:CD2	2.48	0.49
1:L:363:TYR:OH	1:L:373:LEU:O	2.18	0.49
1:A:223:TYR:CE1	1:A:278:LYS:HG3	2.48	0.49
1:B:124:GLY:HA3	1:B:303:VAL:HG22	1.94	0.49
1:C:124:GLY:HA3	1:C:303:VAL:HG22	1.94	0.49
1:F:159:ASP:C	1:F:161:ASN:H	2.14	0.49
1:F:248:LYS:HE3	1:F:252:LYS:HB2	1.94	0.49
1:F:377:THR:HA	1:F:383:ASP:OD2	2.13	0.49
1:G:101:ASP:OD2	1:G:144:ILE:HG12	2.13	0.49
1:G:161:ASN:HD21	1:H:183:GLY:HA3	1.77	0.49
1:H:525:GLN:HB2	1:H:529:GLN:OE1	2.13	0.49
1:L:223:TYR:CE1	1:L:278:LYS:HG3	2.47	0.49
1:A:236:GLN:HB2	1:A:265:LYS:CD	2.43	0.49
1:A:80:TYR:CD1	1:A:444:LEU:HD21	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:613:GLY:CA	1:C:616:LEU:HD13	2.43	0.49
1:C:82:PRO:HB3	1:C:90:ALA:HB3	1.94	0.49
1:E:24:GLU:OE1	1:E:24:GLU:N	2.45	0.49
1:E:587:PRO:HD2	1:E:589:GLU:HG3	1.94	0.49
1:E:663:SER:HA	1:E:666:ARG:NE	2.23	0.49
1:F:613:GLY:O	1:F:616:LEU:HD13	2.13	0.49
1:G:151:SER:HB2	1:G:155:HIS:CE1	2.48	0.49
1:G:514:TYR:HB2	1:H:136:SER:OG	2.13	0.49
1:I:515:GLU:OE1	1:I:515:GLU:N	2.46	0.49
1:I:78:VAL:HG22	1:I:520:VAL:HG12	1.95	0.49
1:A:350:PHE:HB2	1:A:390:ALA:HB3	1.94	0.49
1:A:639:VAL:O	1:A:642:GLN:HG2	2.12	0.49
1:D:354:GLU:HG2	1:E:376:ARG:HD3	1.94	0.49
1:E:639:VAL:O	1:E:642:GLN:HG2	2.13	0.49
1:F:114:ALA:O	1:F:118:GLN:HB2	2.13	0.49
1:G:377:THR:HA	1:G:383:ASP:OD2	2.11	0.49
1:H:228:LYS:HB2	1:H:275:ARG:HB3	1.95	0.49
1:H:382:GLY:N	1:H:383:ASP:HA	2.27	0.49
1:H:590:GLN:HA	1:H:594:VAL:HB	1.94	0.49
1:J:24:GLU:N	1:J:24:GLU:OE1	2.46	0.49
1:L:124:GLY:CA	1:L:303:VAL:HG22	2.43	0.49
1:B:325:ASP:O	1:B:328:ARG:HG2	2.12	0.49
1:C:55:GLY:N	1:C:335:SER:OG	2.43	0.49
1:C:32:ASP:O	1:C:35:PHE:HB2	2.12	0.49
1:D:24:GLU:N	1:D:24:GLU:OE1	2.45	0.49
1:E:642:GLN:HA	1:E:645:LEU:HD12	1.94	0.49
1:E:646:ASN:HA	1:F:644:GLN:HG2	1.95	0.49
1:J:417:THR:O	1:J:418:LEU:HD12	2.12	0.49
1:J:628:GLN:O	1:J:632:LEU:HB2	2.13	0.49
1:K:236:GLN:HB2	1:K:265:LYS:CD	2.43	0.49
1:K:382:GLY:N	1:K:383:ASP:HA	2.25	0.49
1:C:152:ALA:HA	1:C:155:HIS:HB2	1.94	0.49
1:C:220:ALA:CB	1:C:281:ILE:O	2.48	0.49
1:D:363:TYR:HE1	1:D:372:TYR:HA	1.77	0.49
1:D:417:THR:O	1:D:418:LEU:HD12	2.13	0.49
1:F:223:TYR:CE1	1:F:278:LYS:HG3	2.47	0.49
1:F:230:GLU:OE2	1:F:249:ARG:HG2	2.12	0.49
1:F:434:THR:HG21	1:G:72:ARG:HG3	1.95	0.49
1:G:41:TRP:CH2	1:G:44:TRP:HB2	2.48	0.49
1:I:168:SER:HA	1:I:297:HIS:NE2	2.27	0.49
1:I:337:ASN:HA	1:I:340:ILE:HD12	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:303:VAL:HG12	1:J:439:ASN:HB3	1.95	0.49
1:K:176:ILE:HD11	1:K:204:PRO:HB3	1.95	0.49
1:K:335:SER:O	1:K:338:ALA:HB3	2.13	0.49
1:L:613:GLY:O	1:L:616:LEU:CD1	2.61	0.49
1:B:32:ASP:O	1:B:35:PHE:HB2	2.12	0.48
1:C:639:VAL:O	1:C:642:GLN:HG2	2.13	0.48
1:D:249:ARG:HG3	1:D:250:ASP:N	2.28	0.48
1:E:152:ALA:HA	1:E:155:HIS:HB2	1.94	0.48
1:E:281:ILE:HG12	1:E:287:LEU:H	1.78	0.48
1:F:639:VAL:O	1:F:642:GLN:HG2	2.13	0.48
1:H:151:SER:HB2	1:H:155:HIS:CE1	2.48	0.48
1:H:159:ASP:C	1:H:161:ASN:H	2.17	0.48
1:H:511:ARG:HD3	1:H:513:ARG:HH22	1.78	0.48
1:I:162:SER:HB2	1:I:170:ALA:HB2	1.95	0.48
1:I:613:GLY:CA	1:I:616:LEU:HD12	2.41	0.48
1:J:433:ASP:O	1:J:436:ASN:HB3	2.13	0.48
1:A:75:PRO:HD2	1:A:523:SER:HB3	1.94	0.48
1:B:576:LEU:O	1:B:581:VAL:HG12	2.13	0.48
1:A:621:GLU:OE2	1:B:616:LEU:HB3	2.14	0.48
1:E:131:ASP:OD1	1:E:132:TYR:N	2.46	0.48
1:G:32:ASP:O	1:G:35:PHE:HB2	2.13	0.48
1:H:433:ASP:O	1:H:436:ASN:HB3	2.12	0.48
1:I:159:ASP:C	1:I:161:ASN:H	2.16	0.48
1:J:324:LYS:O	1:J:327:GLN:HB2	2.13	0.48
1:K:140:ASN:HB3	1:K:455:THR:OG1	2.13	0.48
1:A:106:THR:HG23	1:A:146:ARG:HE	1.78	0.48
1:A:230:GLU:OE2	1:A:249:ARG:HG2	2.12	0.48
1:A:417:THR:O	1:A:418:LEU:HD12	2.12	0.48
1:A:37:ARG:NH1	1:A:48:TYR:OH	2.42	0.48
1:A:525:GLN:HB2	1:A:529:GLN:OE1	2.13	0.48
1:A:528:LYS:NZ	1:A:559:LEU:O	2.44	0.48
1:A:576:LEU:O	1:A:581:VAL:HG12	2.13	0.48
1:B:168:SER:HA	1:B:297:HIS:NE2	2.29	0.48
1:C:24:GLU:OE1	1:C:24:GLU:N	2.46	0.48
1:E:235:TYR:HE1	1:E:264:ILE:HA	1.78	0.48
1:E:303:VAL:HB	1:E:439:ASN:ND2	2.28	0.48
1:F:399:GLN:HA	1:F:402:ALA:HB3	1.95	0.48
1:F:591:GLN:HA	1:F:595:GLU:CD	2.33	0.48
1:H:99:ARG:NH2	1:H:525:GLN:HA	2.28	0.48
1:H:356:ILE:HG21	1:I:373:LEU:HD21	1.95	0.48
1:I:75:PRO:HD2	1:I:523:SER:HB3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:349:PRO:HG3	1:K:391:TYR:CZ	2.48	0.48
1:K:377:THR:HA	1:K:383:ASP:OD2	2.14	0.48
1:L:444:LEU:O	1:L:447:TYR:HB3	2.13	0.48
1:L:576:LEU:O	1:L:581:VAL:HG12	2.12	0.48
1:B:438:LEU:O	1:B:442:ALA:N	2.38	0.48
1:C:201:PHE:HD1	1:C:283:CYS:HB2	1.77	0.48
1:D:162:SER:OG	1:D:164:LEU:O	2.31	0.48
1:D:281:ILE:HG12	1:D:287:LEU:H	1.78	0.48
1:E:235:TYR:CE1	1:E:264:ILE:HA	2.48	0.48
1:E:248:LYS:HE3	1:E:252:LYS:HB2	1.95	0.48
1:E:377:THR:HA	1:E:383:ASP:OD2	2.13	0.48
1:E:45:LEU:HG	1:E:46:SER:H	1.79	0.48
1:F:131:ASP:OD1	1:F:132:TYR:N	2.45	0.48
1:F:24:GLU:OE1	1:F:24:GLU:N	2.47	0.48
1:J:536:LEU:HD23	1:J:539:LEU:HD12	1.93	0.48
1:J:586:THR:CG2	1:J:590:GLN:HE22	2.26	0.48
1:K:587:PRO:HD2	1:K:589:GLU:HG3	1.95	0.48
1:K:581:VAL:HG22	1:L:567:MET:HB2	1.94	0.48
1:B:528:LYS:NZ	1:B:559:LEU:O	2.43	0.48
1:B:581:VAL:HG22	1:C:567:MET:HB2	1.96	0.48
1:B:354:GLU:HG2	1:C:376:ARG:HD3	1.95	0.48
1:D:140:ASN:HB3	1:D:455:THR:OG1	2.14	0.48
1:D:613:GLY:HA2	1:D:616:LEU:HD12	1.96	0.48
1:C:664:GLU:OE2	1:D:666:ARG:NH2	2.46	0.48
1:D:75:PRO:HD2	1:D:523:SER:HB3	1.95	0.48
1:E:220:ALA:CB	1:E:281:ILE:O	2.46	0.48
1:E:438:LEU:O	1:E:442:ALA:N	2.40	0.48
1:F:162:SER:HA	1:F:169:ASP:OD1	2.13	0.48
1:F:444:LEU:O	1:F:447:TYR:HB3	2.13	0.48
1:G:80:TYR:CD1	1:G:444:LEU:HD21	2.49	0.48
1:G:78:VAL:HG22	1:G:520:VAL:HG12	1.96	0.48
1:I:586:THR:CG2	1:I:590:GLN:HE22	2.25	0.48
1:J:82:PRO:HB3	1:J:90:ALA:HB3	1.96	0.48
1:L:106:THR:HG23	1:L:146:ARG:HE	1.79	0.48
1:L:586:THR:CG2	1:L:590:GLN:HE22	2.26	0.48
1:L:593:LEU:O	1:L:597:GLN:HG3	2.12	0.48
1:A:306:GLU:OE2	1:B:61:ARG:NE	2.46	0.48
1:A:350:PHE:CD1	1:B:372:TYR:HB3	2.48	0.48
1:A:45:LEU:HG	1:A:46:SER:H	1.77	0.48
1:C:159:ASP:C	1:C:161:ASN:H	2.16	0.48
1:F:641:ALA:HA	1:F:644:GLN:OE1	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:272:LYS:O	1:G:134:ASP:HB2	2.13	0.48
1:G:433:ASP:O	1:G:436:ASN:HB3	2.14	0.48
1:I:353:PRO:HA	1:J:373:LEU:HD23	1.94	0.48
1:A:403:TYR:OH	1:B:397:VAL:HG11	2.14	0.48
1:B:641:ALA:HA	1:B:644:GLN:OE1	2.14	0.48
1:D:124:GLY:CA	1:D:303:VAL:HG22	2.43	0.48
1:F:515:GLU:N	1:F:515:GLU:OE1	2.46	0.48
1:G:230:GLU:OE2	1:G:249:ARG:HG2	2.14	0.48
1:G:660:SER:O	1:G:663:SER:OG	2.24	0.48
1:G:663:SER:O	1:G:666:ARG:HG3	2.14	0.48
1:J:161:ASN:ND2	1:K:183:GLY:HA3	2.25	0.48
1:K:528:LYS:HZ3	1:K:560:LEU:HD23	1.76	0.48
1:A:641:ALA:HA	1:A:644:GLN:OE1	2.13	0.48
1:C:223:TYR:CE1	1:C:278:LYS:HG3	2.49	0.48
1:C:349:PRO:HG3	1:C:391:TYR:CZ	2.49	0.48
1:E:201:PHE:HD1	1:E:283:CYS:HB2	1.78	0.48
1:E:417:THR:O	1:E:418:LEU:HD12	2.14	0.48
1:E:80:TYR:CD1	1:E:444:LEU:HD21	2.49	0.48
1:F:32:ASP:O	1:F:35:PHE:HB2	2.14	0.48
1:G:37:ARG:NH1	1:G:48:TYR:OH	2.38	0.48
1:H:162:SER:OG	1:H:164:LEU:O	2.31	0.48
1:I:24:GLU:OE1	1:I:24:GLU:N	2.47	0.48
1:K:21:ALA:HA	1:K:159:ASP:OD2	2.14	0.48
1:L:99:ARG:NE	1:L:525:GLN:O	2.46	0.48
1:A:220:ALA:CB	1:A:281:ILE:O	2.48	0.48
1:C:21:ALA:HA	1:C:159:ASP:OD2	2.14	0.48
1:C:363:TYR:HE1	1:C:372:TYR:HA	1.79	0.48
1:D:223:TYR:CE1	1:D:278:LYS:HG3	2.48	0.48
1:F:628:GLN:O	1:F:632:LEU:HB2	2.14	0.48
1:G:664:GLU:HG3	1:H:659:LEU:HD22	1.94	0.48
1:J:228:LYS:HB2	1:J:275:ARG:HB3	1.95	0.48
1:K:235:TYR:HE1	1:K:264:ILE:HA	1.78	0.48
1:K:576:LEU:O	1:K:581:VAL:HG12	2.14	0.48
1:L:587:PRO:HD2	1:L:589:GLU:HG3	1.95	0.48
1:A:151:SER:HB2	1:A:155:HIS:CE1	2.48	0.48
1:A:162:SER:HB2	1:A:170:ALA:HB2	1.96	0.48
1:B:444:LEU:O	1:B:448:VAL:HG23	2.14	0.48
1:B:80:TYR:CZ	1:B:516:CYS:HB2	2.49	0.48
1:B:587:PRO:HD2	1:B:589:GLU:HG3	1.95	0.48
1:C:433:ASP:O	1:C:436:ASN:HB3	2.13	0.48
1:C:515:GLU:N	1:C:515:GLU:OE1	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:35:PHE:CZ	1:E:321:ARG:HB2	2.49	0.48
1:E:577:ILE:HG21	1:E:593:LEU:HD13	1.95	0.48
1:E:641:ALA:HA	1:E:644:GLN:OE1	2.14	0.48
1:F:303:VAL:HB	1:F:439:ASN:ND2	2.29	0.48
1:F:82:PRO:HB3	1:F:90:ALA:HB3	1.96	0.48
1:H:193:LEU:HD21	1:H:288:LYS:NZ	2.29	0.48
1:I:325:ASP:O	1:I:328:ARG:HG2	2.14	0.48
1:I:576:LEU:O	1:I:581:VAL:HG12	2.14	0.48
1:J:124:GLY:HA3	1:J:303:VAL:HG22	1.96	0.48
1:J:444:LEU:O	1:J:448:VAL:HG23	2.13	0.48
1:K:303:VAL:HB	1:K:439:ASN:ND2	2.28	0.48
1:A:131:ASP:OD1	1:A:132:TYR:N	2.46	0.47
1:A:278:LYS:HE2	1:A:280:ILE:HD11	1.96	0.47
1:A:577:ILE:HG21	1:A:593:LEU:HD13	1.94	0.47
1:B:321:ARG:HA	1:B:324:LYS:HE2	1.95	0.47
1:E:165:MET:HB3	1:E:304:PHE:CG	2.48	0.47
1:G:82:PRO:HB3	1:G:90:ALA:HB3	1.94	0.47
1:H:441:ARG:NH2	1:H:519:ASP:OD1	2.47	0.47
1:H:87:ARG:HD3	1:H:89:ASP:HB2	1.96	0.47
1:I:162:SER:OG	1:I:164:LEU:O	2.32	0.47
1:I:350:PHE:HB2	1:I:390:ALA:HB3	1.95	0.47
1:L:105:ASN:O	1:L:109:ILE:HG12	2.14	0.47
1:L:152:ALA:HA	1:L:155:HIS:HB2	1.95	0.47
1:L:662:GLN:HA	1:L:665:PHE:CD2	2.49	0.47
1:A:382:GLY:N	1:A:383:ASP:HA	2.27	0.47
1:C:27:ARG:HD3	1:C:313:LYS:HE3	1.97	0.47
1:C:532:ARG:HH22	1:C:560:LEU:HD11	1.78	0.47
1:C:514:TYR:HB2	1:D:136:SER:OG	2.14	0.47
1:D:639:VAL:O	1:D:642:GLN:HG2	2.13	0.47
1:E:590:GLN:HA	1:E:594:VAL:HB	1.96	0.47
1:F:587:PRO:HD2	1:F:589:GLU:HG3	1.96	0.47
1:G:417:THR:O	1:G:418:LEU:HD12	2.14	0.47
1:G:444:LEU:O	1:G:447:TYR:HB3	2.15	0.47
1:G:444:LEU:O	1:G:448:VAL:HG23	2.14	0.47
1:I:27:ARG:HD3	1:I:313:LYS:HE3	1.96	0.47
1:J:591:GLN:HA	1:J:595:GLU:CD	2.35	0.47
1:K:15:PHE:HA	1:K:18:ASP:HB3	1.95	0.47
1:B:105:ASN:O	1:B:109:ILE:HG12	2.15	0.47
1:B:228:LYS:HB2	1:B:275:ARG:HB3	1.96	0.47
1:B:27:ARG:HA	1:B:30:LYS:HE2	1.97	0.47
1:B:664:GLU:HG3	1:C:659:LEU:HD22	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:140:ASN:HB3	1:E:455:THR:OG1	2.14	0.47
1:F:249:ARG:HG3	1:F:250:ASP:N	2.29	0.47
1:F:649:ARG:O	1:F:653:ILE:HG13	2.14	0.47
1:G:303:VAL:HG12	1:G:439:ASN:HB3	1.96	0.47
1:G:614:VAL:HG21	1:H:609:VAL:CG1	2.44	0.47
1:I:664:GLU:OE2	1:J:666:ARG:NH2	2.47	0.47
1:K:639:VAL:O	1:K:642:GLN:HG2	2.15	0.47
1:L:164:LEU:HD11	1:L:168:SER:H	1.79	0.47
1:L:203:ASN:OD1	1:L:205:ASN:N	2.34	0.47
1:L:338:ALA:O	1:L:342:ALA:N	2.45	0.47
1:A:136:SER:OG	1:L:514:TYR:HB2	2.14	0.47
1:A:324:LYS:O	1:A:327:GLN:HB2	2.14	0.47
1:B:230:GLU:OE2	1:B:249:ARG:HG2	2.14	0.47
1:B:29:ALA:O	1:B:33:LEU:HB2	2.13	0.47
1:B:80:TYR:CD1	1:B:444:LEU:HD21	2.49	0.47
1:D:105:ASN:O	1:D:109:ILE:HG12	2.14	0.47
1:E:380:ASN:OD1	1:E:381:SER:N	2.47	0.47
1:F:538:LEU:HB3	1:F:551:LEU:HD11	1.95	0.47
1:G:47:GLN:HB2	1:G:50:THR:CG2	2.43	0.47
1:H:303:VAL:HB	1:H:439:ASN:ND2	2.28	0.47
1:H:53:TYR:CG	1:H:54:ARG:N	2.83	0.47
1:I:223:TYR:CE1	1:I:278:LYS:HG3	2.50	0.47
1:J:380:ASN:OD1	1:J:381:SER:N	2.47	0.47
1:I:696:GLN:HE22	1:J:698:HIS:CE1	2.32	0.47
1:K:80:TYR:CZ	1:K:516:CYS:HB2	2.50	0.47
1:L:528:LYS:HZ3	1:L:560:LEU:HD23	1.79	0.47
1:C:165:MET:HB3	1:C:304:PHE:CG	2.49	0.47
1:E:663:SER:O	1:E:666:ARG:HG3	2.14	0.47
1:F:80:TYR:CZ	1:F:516:CYS:HB2	2.49	0.47
1:F:576:LEU:O	1:F:581:VAL:HG12	2.14	0.47
1:G:124:GLY:HA3	1:G:303:VAL:HG22	1.96	0.47
1:G:418:LEU:HD23	1:G:429:GLN:HB3	1.95	0.47
1:G:587:PRO:HD2	1:G:589:GLU:HG3	1.97	0.47
1:F:306:GLU:OE2	1:G:61:ARG:NE	2.48	0.47
1:H:176:ILE:HD11	1:H:204:PRO:HB3	1.96	0.47
1:H:124:GLY:HA3	1:H:303:VAL:HG22	1.95	0.47
1:H:353:PRO:HD3	1:I:374:LEU:O	2.14	0.47
1:J:641:ALA:HA	1:J:644:GLN:OE1	2.15	0.47
1:J:701:ARG:HA	1:J:704:ILE:HD12	1.97	0.47
1:K:303:VAL:HG12	1:K:439:ASN:HB3	1.95	0.47
1:J:657:MET:SD	1:K:655:ASN:ND2	2.88	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:223:TYR:HE1	1:L:278:LYS:HG3	1.79	0.47
1:A:124:GLY:CA	1:A:303:VAL:HG22	2.45	0.47
1:A:176:ILE:HD11	1:A:204:PRO:HB3	1.95	0.47
1:B:161:ASN:HD21	1:C:183:GLY:HA3	1.79	0.47
1:B:646:ASN:HA	1:C:644:GLN:HG2	1.97	0.47
1:D:377:THR:HA	1:D:383:ASP:OD2	2.14	0.47
1:F:417:THR:O	1:F:418:LEU:HD12	2.14	0.47
1:F:661:LYS:HE3	1:F:665:PHE:CZ	2.50	0.47
1:G:159:ASP:C	1:G:161:ASN:H	2.16	0.47
1:J:201:PHE:HD1	1:J:283:CYS:HB2	1.79	0.47
1:J:350:PHE:N	1:J:390:ALA:O	2.36	0.47
1:K:444:LEU:O	1:K:447:TYR:HB3	2.15	0.47
1:L:235:TYR:CE1	1:L:264:ILE:HA	2.50	0.47
1:A:193:LEU:HD21	1:A:288:LYS:HZ3	1.78	0.47
1:A:53:TYR:CG	1:A:54:ARG:N	2.83	0.47
1:A:586:THR:CG2	1:A:590:GLN:HE22	2.26	0.47
1:B:417:THR:O	1:B:418:LEU:HD12	2.14	0.47
1:B:649:ARG:O	1:B:653:ILE:HG13	2.14	0.47
1:C:387:GLN:HG3	1:C:387:GLN:O	2.14	0.47
1:D:252:LYS:HD2	1:D:256:ASP:HB3	1.96	0.47
1:G:171:ARG:NH1	1:H:186:ASP:OD2	2.48	0.47
1:I:426:ASN:O	1:I:429:GLN:NE2	2.48	0.47
1:L:21:ALA:HA	1:L:159:ASP:OD2	2.14	0.47
1:A:661:LYS:HE3	1:A:665:PHE:CZ	2.49	0.47
1:B:350:PHE:HB2	1:B:390:ALA:HB3	1.97	0.47
1:B:45:LEU:HG	1:B:46:SER:H	1.80	0.47
1:B:248:LYS:HG2	1:B:511:ARG:HH21	1.80	0.47
1:B:663:SER:O	1:B:666:ARG:HG3	2.15	0.47
1:D:303:VAL:HG12	1:D:439:ASN:HB3	1.96	0.47
1:H:528:LYS:NZ	1:H:559:LEU:O	2.45	0.47
1:H:576:LEU:O	1:H:581:VAL:HG12	2.15	0.47
1:H:646:ASN:OD1	1:H:647:ALA:N	2.48	0.47
1:I:228:LYS:HB2	1:I:275:ARG:HB3	1.96	0.47
1:I:201:PHE:HD1	1:I:283:CYS:HB2	1.79	0.47
1:J:114:ALA:O	1:J:118:GLN:HB2	2.14	0.47
1:J:621:GLU:OE2	1:K:616:LEU:HB3	2.15	0.47
1:K:131:ASP:OD1	1:K:132:TYR:N	2.48	0.47
1:K:80:TYR:CD1	1:K:444:LEU:HD21	2.49	0.47
1:K:80:TYR:HD1	1:K:518:THR:HA	1.78	0.47
1:L:201:PHE:HD1	1:L:283:CYS:HB2	1.80	0.47
1:L:320:VAL:O	1:L:323:THR:OG1	2.18	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:646:ASN:HA	1:L:644:GLN:HG2	1.97	0.47
1:A:444:LEU:HD23	1:A:518:THR:HB	1.97	0.47
1:C:249:ARG:HG3	1:C:250:ASP:N	2.30	0.47
1:C:641:ALA:HA	1:C:644:GLN:OE1	2.14	0.47
1:B:657:MET:SD	1:C:655:ASN:ND2	2.88	0.47
1:D:613:GLY:O	1:D:616:LEU:CD1	2.63	0.47
1:E:528:LYS:HZ3	1:E:560:LEU:HD23	1.79	0.47
1:E:536:LEU:HD23	1:E:539:LEU:HD12	1.95	0.47
1:E:538:LEU:HB3	1:E:551:LEU:HD11	1.97	0.47
1:E:576:LEU:O	1:E:581:VAL:HG12	2.15	0.47
1:F:151:SER:HB2	1:F:155:HIS:CE1	2.50	0.47
1:F:162:SER:OG	1:F:164:LEU:O	2.33	0.47
1:I:444:LEU:O	1:I:447:TYR:HB3	2.15	0.47
1:I:641:ALA:HA	1:I:644:GLN:OE1	2.15	0.47
1:K:663:SER:O	1:K:666:ARG:HG3	2.14	0.47
1:A:134:ASP:HB2	1:L:272:LYS:O	2.14	0.47
1:A:444:LEU:O	1:A:448:VAL:HG23	2.14	0.47
1:C:117:GLU:HB3	1:C:123:VAL:HG23	1.97	0.47
1:C:325:ASP:O	1:C:328:ARG:HG2	2.15	0.47
1:D:80:TYR:CD1	1:D:444:LEU:HD21	2.49	0.47
1:E:124:GLY:HA3	1:E:303:VAL:HG22	1.96	0.47
1:E:695:GLU:HA	1:E:698:HIS:ND1	2.30	0.47
1:F:238:PRO:HB3	1:F:263:PHE:CD1	2.50	0.47
1:H:238:PRO:HB3	1:H:263:PHE:CD1	2.49	0.47
1:H:80:TYR:CD1	1:H:444:LEU:HD21	2.50	0.47
1:I:377:THR:HA	1:I:383:ASP:OD2	2.14	0.47
1:J:363:TYR:CE1	1:J:372:TYR:HA	2.49	0.47
1:L:387:GLN:O	1:L:387:GLN:HG3	2.15	0.47
1:C:333:ILE:HG22	1:C:337:ASN:OD1	2.15	0.47
1:C:78:VAL:HG22	1:C:520:VAL:HG12	1.97	0.47
1:D:82:PRO:HB3	1:D:90:ALA:HB3	1.97	0.47
1:F:590:GLN:HA	1:F:594:VAL:HB	1.96	0.47
1:G:27:ARG:HH11	1:G:313:LYS:HE3	1.80	0.47
1:G:380:ASN:OD1	1:G:381:SER:N	2.48	0.47
1:G:434:THR:HG21	1:H:72:ARG:HG3	1.96	0.47
1:H:105:ASN:O	1:H:109:ILE:HG12	2.15	0.47
1:H:223:TYR:HE1	1:H:278:LYS:HG3	1.80	0.47
1:H:27:ARG:HD3	1:H:313:LYS:HE3	1.96	0.47
1:H:587:PRO:HD2	1:H:589:GLU:HG3	1.97	0.47
1:I:403:TYR:OH	1:J:397:VAL:HG11	2.15	0.47
1:A:444:LEU:O	1:A:447:TYR:HB3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:356:ILE:HG21	1:C:373:LEU:HD21	1.97	0.46
1:C:21:ALA:HB2	1:C:172:HIS:CD2	2.50	0.46
1:C:663:SER:HA	1:C:666:ARG:NE	2.25	0.46
1:D:162:SER:HA	1:D:169:ASP:OD1	2.15	0.46
1:E:164:LEU:HD11	1:E:168:SER:H	1.79	0.46
1:E:15:PHE:HA	1:E:18:ASP:HB3	1.97	0.46
1:F:105:ASN:O	1:F:109:ILE:HG12	2.15	0.46
1:F:303:VAL:HG12	1:F:439:ASN:HB3	1.98	0.46
1:G:281:ILE:HG12	1:G:287:LEU:H	1.80	0.46
1:F:353:PRO:HD3	1:G:374:LEU:O	2.14	0.46
1:H:117:GLU:HB3	1:H:123:VAL:HG23	1.96	0.46
1:I:235:TYR:CE1	1:I:264:ILE:HA	2.49	0.46
1:J:306:GLU:HG3	1:K:116:ARG:NH2	2.30	0.46
1:J:53:TYR:O	1:J:54:ARG:NH1	2.46	0.46
1:K:250:ASP:OD1	1:K:251:ILE:HG13	2.16	0.46
1:K:350:PHE:N	1:K:390:ALA:O	2.37	0.46
1:L:377:THR:HA	1:L:383:ASP:OD2	2.15	0.46
1:A:642:GLN:HA	1:A:645:LEU:HD12	1.98	0.46
1:B:387:GLN:O	1:B:387:GLN:HG3	2.15	0.46
1:A:328:ARG:HD2	1:B:53:TYR:OH	2.16	0.46
1:B:646:ASN:OD1	1:B:647:ALA:N	2.49	0.46
1:D:646:ASN:OD1	1:D:647:ALA:N	2.49	0.46
1:E:444:LEU:O	1:E:448:VAL:HG23	2.15	0.46
1:F:387:GLN:O	1:F:387:GLN:HG3	2.15	0.46
1:G:21:ALA:HA	1:G:159:ASP:OD2	2.16	0.46
1:G:350:PHE:N	1:G:390:ALA:O	2.35	0.46
1:G:591:GLN:HA	1:G:595:GLU:CD	2.36	0.46
1:F:664:GLU:OE2	1:G:666:ARG:NH2	2.48	0.46
1:H:161:ASN:ND2	1:I:183:GLY:HA3	2.28	0.46
1:I:303:VAL:HG12	1:I:439:ASN:HB3	1.97	0.46
1:J:438:LEU:O	1:J:442:ALA:N	2.41	0.46
1:K:641:ALA:HA	1:K:644:GLN:OE1	2.15	0.46
1:L:126:TRP:CD1	1:L:146:ARG:HG3	2.51	0.46
1:A:528:LYS:HZ3	1:A:560:LEU:HD23	1.81	0.46
1:B:458:ARG:HH21	1:B:500:ALA:HB1	1.81	0.46
1:B:564:GLY:O	1:B:568:MET:HG2	2.15	0.46
1:C:80:TYR:CZ	1:C:516:CYS:HB2	2.51	0.46
1:D:151:SER:HB2	1:D:155:HIS:CE1	2.50	0.46
1:C:398:PRO:HB3	1:D:394:ASN:HB3	1.96	0.46
1:F:99:ARG:NH2	1:F:525:GLN:HA	2.31	0.46
1:H:249:ARG:HG3	1:H:250:ASP:N	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:420:VAL:HB	1:H:424:ALA:HA	1.97	0.46
1:J:306:GLU:HG3	1:K:116:ARG:HH22	1.80	0.46
1:J:35:PHE:CZ	1:J:321:ARG:HB2	2.51	0.46
1:J:41:TRP:CH2	1:J:44:TRP:HB2	2.49	0.46
1:K:321:ARG:HA	1:K:324:LYS:HE2	1.96	0.46
1:K:354:GLU:HG2	1:L:376:ARG:HD3	1.96	0.46
1:A:303:VAL:HB	1:A:439:ASN:ND2	2.30	0.46
1:A:646:ASN:OD1	1:A:647:ALA:N	2.49	0.46
1:B:151:SER:HB2	1:B:155:HIS:CE1	2.50	0.46
1:B:350:PHE:N	1:B:390:ALA:O	2.33	0.46
1:C:203:ASN:OD1	1:C:205:ASN:N	2.36	0.46
1:D:444:LEU:O	1:D:448:VAL:HG23	2.15	0.46
1:E:246:TYR:HB2	1:E:511:ARG:H	1.81	0.46
1:E:272:LYS:O	1:F:134:ASP:HB2	2.15	0.46
1:F:307:TRP:HE1	1:F:314:GLU:HG2	1.80	0.46
1:G:436:ASN:HA	1:G:439:ASN:ND2	2.30	0.46
1:G:515:GLU:N	1:G:515:GLU:OE1	2.48	0.46
1:G:590:GLN:HA	1:G:594:VAL:HB	1.97	0.46
1:G:646:ASN:OD1	1:G:647:ALA:N	2.49	0.46
1:H:641:ALA:HA	1:H:644:GLN:OE1	2.16	0.46
1:J:338:ALA:O	1:J:342:ALA:N	2.48	0.46
1:J:349:PRO:HG3	1:J:391:TYR:CZ	2.50	0.46
1:J:387:GLN:HG3	1:J:387:GLN:O	2.15	0.46
1:J:590:GLN:HA	1:J:594:VAL:HB	1.97	0.46
1:J:613:GLY:CA	1:J:616:LEU:HD12	2.43	0.46
1:K:21:ALA:HB2	1:K:172:HIS:NE2	2.30	0.46
1:K:701:ARG:HA	1:K:704:ILE:HD12	1.96	0.46
1:A:249:ARG:HG3	1:A:250:ASP:N	2.30	0.46
1:B:248:LYS:CD	1:B:251:ILE:HB	2.41	0.46
1:B:699:LYS:O	1:B:702:MET:HB3	2.16	0.46
1:C:576:LEU:O	1:C:581:VAL:HG12	2.15	0.46
1:D:380:ASN:OD1	1:D:381:SER:N	2.48	0.46
1:F:21:ALA:HA	1:F:159:ASP:OD2	2.16	0.46
1:F:564:GLY:O	1:F:568:MET:HG2	2.15	0.46
1:G:576:LEU:O	1:G:581:VAL:HG12	2.15	0.46
1:I:99:ARG:NE	1:I:525:GLN:O	2.48	0.46
1:I:53:TYR:CG	1:I:54:ARG:N	2.84	0.46
1:I:82:PRO:HB3	1:I:90:ALA:HB3	1.96	0.46
1:J:235:TYR:CE1	1:J:264:ILE:HA	2.51	0.46
1:J:640:GLU:HA	1:J:643:ASN:HD22	1.81	0.46
1:K:444:LEU:O	1:K:448:VAL:HG23	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:609:VAL:O	1:K:612:GLN:HB2	2.16	0.46
1:L:230:GLU:OE2	1:L:249:ARG:HG2	2.15	0.46
1:B:444:LEU:O	1:B:447:TYR:HB3	2.16	0.46
1:C:193:LEU:HD21	1:C:288:LYS:HZ3	1.81	0.46
1:C:250:ASP:OD1	1:C:251:ILE:HG13	2.16	0.46
1:E:223:TYR:CE1	1:E:278:LYS:HG3	2.51	0.46
1:E:235:TYR:HA	1:E:265:LYS:O	2.16	0.46
1:E:387:GLN:HG3	1:E:387:GLN:O	2.16	0.46
1:E:574:LYS:O	1:E:578:GLN:HG3	2.16	0.46
1:G:438:LEU:O	1:G:442:ALA:N	2.40	0.46
1:G:348:LYS:HB2	1:H:372:TYR:CD2	2.51	0.46
1:H:45:LEU:HG	1:H:46:SER:H	1.81	0.46
1:H:649:ARG:O	1:H:653:ILE:HG13	2.16	0.46
1:J:532:ARG:HH22	1:J:560:LEU:HD11	1.80	0.46
1:K:564:GLY:O	1:K:568:MET:HG2	2.15	0.46
1:L:235:TYR:HE1	1:L:264:ILE:HA	1.80	0.46
1:A:133:GLU:O	1:A:137:PRO:HB3	2.16	0.46
1:A:72:ARG:HG3	1:L:434:THR:HG21	1.98	0.46
1:B:377:THR:HA	1:B:383:ASP:OD2	2.16	0.46
1:D:444:LEU:O	1:D:447:TYR:HB3	2.16	0.46
1:E:110:ALA:HB1	1:E:126:TRP:CE3	2.51	0.46
1:F:201:PHE:HD1	1:F:283:CYS:HB2	1.81	0.46
1:F:646:ASN:OD1	1:F:647:ALA:N	2.49	0.46
1:J:120:GLU:HA	1:J:320:VAL:HB	1.98	0.46
1:K:24:GLU:HB2	1:K:159:ASP:OD2	2.16	0.46
1:J:352:TRP:CB	1:K:376:ARG:HD2	2.39	0.46
1:L:151:SER:HB2	1:L:155:HIS:CE1	2.51	0.46
1:A:21:ALA:HA	1:A:159:ASP:OD2	2.16	0.46
1:A:238:PRO:HB3	1:A:263:PHE:CD1	2.51	0.46
1:A:376:ARG:HD3	1:L:354:GLU:HG2	1.98	0.46
1:B:124:GLY:CA	1:B:303:VAL:HG22	2.45	0.46
1:A:272:LYS:O	1:B:134:ASP:HB2	2.16	0.46
1:B:225:VAL:HA	1:B:276:VAL:HG12	1.97	0.46
1:C:228:LYS:HB2	1:C:275:ARG:HB3	1.97	0.46
1:C:444:LEU:O	1:C:448:VAL:HG23	2.15	0.46
1:D:649:ARG:O	1:D:653:ILE:HG13	2.16	0.46
1:E:124:GLY:CA	1:E:303:VAL:HG22	2.46	0.46
1:E:354:GLU:HG2	1:F:376:ARG:HD3	1.97	0.46
1:E:646:ASN:OD1	1:E:647:ALA:N	2.48	0.46
1:F:586:THR:CG2	1:F:590:GLN:HE22	2.27	0.46
1:G:114:ALA:O	1:G:118:GLN:HB2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:42:ASP:HB3	1:G:44:TRP:HD1	1.81	0.46
1:H:21:ALA:HA	1:H:159:ASP:OD2	2.16	0.46
1:H:325:ASP:O	1:H:328:ARG:HG2	2.15	0.46
1:G:411:ALA:HA	1:H:57:PHE:HE1	1.81	0.46
1:H:80:TYR:HD1	1:H:518:THR:HA	1.81	0.46
1:I:21:ALA:HA	1:I:159:ASP:OD2	2.15	0.46
1:I:646:ASN:OD1	1:I:647:ALA:N	2.49	0.46
1:K:223:TYR:HE1	1:K:278:LYS:HG3	1.80	0.46
1:K:387:GLN:O	1:K:387:GLN:HG3	2.15	0.46
1:K:528:LYS:NZ	1:K:559:LEU:O	2.44	0.46
1:K:591:GLN:HA	1:K:595:GLU:CD	2.36	0.46
1:A:372:TYR:CD2	1:L:348:LYS:HB2	2.50	0.46
1:L:41:TRP:CH2	1:L:44:TRP:HB2	2.51	0.46
1:A:165:MET:HB3	1:A:304:PHE:CG	2.50	0.46
1:A:350:PHE:N	1:A:390:ALA:O	2.38	0.46
1:A:82:PRO:HB3	1:A:90:ALA:HB3	1.98	0.46
1:B:586:THR:CG2	1:B:590:GLN:HE22	2.26	0.46
1:B:591:GLN:HA	1:B:595:GLU:CD	2.36	0.46
1:B:593:LEU:O	1:B:597:GLN:HG3	2.16	0.46
1:C:306:GLU:OE2	1:D:61:ARG:NE	2.49	0.46
1:D:642:GLN:HA	1:D:645:LEU:HD12	1.98	0.46
1:E:249:ARG:HG3	1:E:250:ASP:N	2.30	0.46
1:E:444:LEU:HD23	1:E:518:THR:HB	1.98	0.46
1:G:162:SER:HB2	1:G:170:ALA:HB2	1.97	0.46
1:G:87:ARG:HD3	1:G:89:ASP:HB2	1.98	0.46
1:H:114:ALA:O	1:H:118:GLN:HB2	2.16	0.46
1:H:387:GLN:HG3	1:H:387:GLN:O	2.16	0.46
1:H:350:PHE:N	1:H:390:ALA:O	2.35	0.46
1:I:124:GLY:HA3	1:I:303:VAL:HG22	1.97	0.46
1:I:249:ARG:HG3	1:I:250:ASP:N	2.31	0.46
1:I:387:GLN:HG3	1:I:387:GLN:O	2.16	0.46
1:I:590:GLN:HA	1:I:594:VAL:HB	1.98	0.46
1:K:235:TYR:CE1	1:K:264:ILE:HA	2.49	0.46
1:L:24:GLU:HB2	1:L:159:ASP:OD2	2.16	0.46
1:K:306:GLU:OE2	1:L:61:ARG:NE	2.49	0.46
1:A:248:LYS:HE3	1:A:252:LYS:HB2	1.98	0.46
1:C:124:GLY:CA	1:C:303:VAL:HG22	2.46	0.46
1:C:695:GLU:HA	1:C:698:HIS:ND1	2.31	0.46
1:D:250:ASP:OD1	1:D:251:ILE:HG13	2.16	0.46
1:F:87:ARG:HD3	1:F:89:ASP:HB2	1.98	0.46
1:G:201:PHE:HD1	1:G:283:CYS:HB2	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:35:PHE:CZ	1:G:321:ARG:HB2	2.51	0.46
1:G:45:LEU:HG	1:G:46:SER:H	1.81	0.46
1:G:663:SER:HA	1:G:666:ARG:NE	2.28	0.46
1:H:140:ASN:HB3	1:H:455:THR:OG1	2.16	0.46
1:H:429:GLN:HA	1:H:432:PHE:HD2	1.80	0.46
1:I:117:GLU:OE1	1:I:124:GLY:HA2	2.16	0.46
1:I:349:PRO:HG3	1:I:391:TYR:CZ	2.51	0.46
1:J:80:TYR:CD1	1:J:444:LEU:HD21	2.51	0.46
1:A:26:ARG:O	1:A:30:LYS:HG3	2.16	0.45
1:A:587:PRO:HD2	1:A:589:GLU:HG3	1.97	0.45
1:B:176:ILE:HD11	1:B:204:PRO:HB3	1.98	0.45
1:B:303:VAL:HG12	1:B:439:ASN:HB3	1.97	0.45
1:C:235:TYR:CE1	1:C:264:ILE:HA	2.51	0.45
1:C:303:VAL:HG12	1:C:439:ASN:HB3	1.97	0.45
1:D:641:ALA:HA	1:D:644:GLN:OE1	2.15	0.45
1:E:21:ALA:HB2	1:E:172:HIS:CD2	2.51	0.45
1:F:80:TYR:CD1	1:F:444:LEU:HD21	2.51	0.45
1:G:10:SER:O	1:G:14:ARG:HG2	2.17	0.45
1:G:15:PHE:HA	1:G:18:ASP:HB3	1.98	0.45
1:G:338:ALA:O	1:G:342:ALA:N	2.46	0.45
1:G:53:TYR:CG	1:G:54:ARG:N	2.84	0.45
1:H:82:PRO:HB3	1:H:90:ALA:HB3	1.99	0.45
1:J:574:LYS:O	1:J:578:GLN:HG3	2.16	0.45
1:K:142:GLN:NE2	1:K:455:THR:OG1	2.50	0.45
1:K:230:GLU:OE2	1:K:249:ARG:HG2	2.15	0.45
1:K:45:LEU:HG	1:K:46:SER:H	1.80	0.45
1:K:646:ASN:OD1	1:K:647:ALA:N	2.49	0.45
1:B:250:ASP:OD1	1:B:251:ILE:HG13	2.16	0.45
1:C:281:ILE:HG12	1:C:287:LEU:H	1.81	0.45
1:C:429:GLN:HA	1:C:432:PHE:HD2	1.81	0.45
1:D:223:TYR:HE1	1:D:278:LYS:HG3	1.81	0.45
1:E:203:ASN:OD1	1:E:205:ASN:N	2.37	0.45
1:D:657:MET:SD	1:E:655:ASN:ND2	2.90	0.45
1:F:444:LEU:HD23	1:F:518:THR:HB	1.98	0.45
1:H:165:MET:HB3	1:H:304:PHE:CG	2.52	0.45
1:H:42:ASP:HB3	1:H:44:TRP:HD1	1.81	0.45
1:H:591:GLN:HA	1:H:595:GLU:CD	2.36	0.45
1:H:662:GLN:HA	1:H:665:PHE:CD2	2.51	0.45
1:I:438:LEU:O	1:I:442:ALA:N	2.40	0.45
1:J:151:SER:HB2	1:J:155:HIS:CE1	2.52	0.45
1:J:236:GLN:HG2	1:J:244:VAL:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:273:ARG:NE	1:J:296:GLU:OE2	2.49	0.45
1:L:296:GLU:HB2	1:L:449:PHE:CD2	2.36	0.45
1:L:564:GLY:O	1:L:568:MET:HG2	2.17	0.45
1:A:355:GLN:HA	1:A:375:ASN:HB3	1.98	0.45
1:A:377:THR:HA	1:A:383:ASP:OD2	2.16	0.45
1:B:99:ARG:NE	1:B:525:GLN:O	2.49	0.45
1:B:661:LYS:HE3	1:B:665:PHE:CZ	2.51	0.45
1:D:593:LEU:O	1:D:597:GLN:HG3	2.16	0.45
1:D:99:ARG:NH2	1:D:525:GLN:HA	2.31	0.45
1:E:444:LEU:O	1:E:447:TYR:HB3	2.16	0.45
1:F:53:TYR:CG	1:F:54:ARG:N	2.83	0.45
1:G:162:SER:OG	1:G:167:LYS:HA	2.16	0.45
1:I:444:LEU:O	1:I:448:VAL:HG23	2.16	0.45
1:J:193:LEU:HD21	1:J:288:LYS:HZ3	1.81	0.45
1:K:320:VAL:O	1:K:323:THR:OG1	2.19	0.45
1:L:133:GLU:O	1:L:137:PRO:HB3	2.16	0.45
1:L:303:VAL:HG12	1:L:439:ASN:HB3	1.98	0.45
1:L:363:TYR:CE1	1:L:372:TYR:HA	2.52	0.45
1:A:105:ASN:O	1:A:109:ILE:HG12	2.15	0.45
1:A:21:ALA:HB2	1:A:172:HIS:NE2	2.31	0.45
1:A:303:VAL:HG12	1:A:439:ASN:HB3	1.98	0.45
1:B:21:ALA:HB2	1:B:172:HIS:NE2	2.31	0.45
1:C:377:THR:HA	1:C:383:ASP:OD2	2.15	0.45
1:C:99:ARG:NH2	1:C:525:GLN:HA	2.32	0.45
1:C:526:SER:O	1:C:530:GLN:N	2.45	0.45
1:D:235:TYR:HA	1:D:265:LYS:O	2.16	0.45
1:D:325:ASP:O	1:D:328:ARG:HG2	2.15	0.45
1:G:80:TYR:CZ	1:G:516:CYS:HB2	2.52	0.45
1:H:250:ASP:OD1	1:H:251:ILE:HG13	2.17	0.45
1:H:26:ARG:O	1:H:30:LYS:HG3	2.17	0.45
1:I:663:SER:HA	1:I:666:ARG:NE	2.29	0.45
1:J:576:LEU:O	1:J:581:VAL:HG12	2.15	0.45
1:J:70:GLU:O	1:J:73:GLN:HG3	2.16	0.45
1:K:355:GLN:HA	1:K:375:ASN:HB3	1.98	0.45
1:K:272:LYS:O	1:L:134:ASP:HB2	2.16	0.45
1:L:250:ASP:OD1	1:L:251:ILE:HG13	2.16	0.45
1:A:363:TYR:CE1	1:A:372:TYR:HA	2.52	0.45
1:A:701:ARG:HA	1:A:704:ILE:HD12	1.99	0.45
1:B:429:GLN:HA	1:B:432:PHE:HD2	1.82	0.45
1:B:628:GLN:O	1:B:632:LEU:HB2	2.15	0.45
1:C:438:LEU:O	1:C:442:ALA:N	2.40	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:593:LEU:O	1:C:597:GLN:HG3	2.16	0.45
1:D:203:ASN:OD1	1:D:205:ASN:N	2.38	0.45
1:D:53:TYR:CG	1:D:54:ARG:N	2.84	0.45
1:E:320:VAL:O	1:E:323:THR:OG1	2.18	0.45
1:E:53:TYR:CG	1:E:54:ARG:N	2.85	0.45
1:E:75:PRO:HD2	1:E:523:SER:HB3	1.98	0.45
1:F:35:PHE:CZ	1:F:321:ARG:HB2	2.52	0.45
1:G:140:ASN:HB3	1:G:455:THR:HG1	1.81	0.45
1:I:238:PRO:HB3	1:I:263:PHE:CD1	2.51	0.45
1:I:380:ASN:OD1	1:I:381:SER:N	2.48	0.45
1:J:106:THR:HG23	1:J:146:ARG:HE	1.81	0.45
1:J:642:GLN:HA	1:J:645:LEU:HD12	1.99	0.45
1:K:248:LYS:HE3	1:K:252:LYS:HB2	1.99	0.45
1:L:45:LEU:HG	1:L:46:SER:H	1.81	0.45
1:A:387:GLN:O	1:A:387:GLN:HG3	2.15	0.45
1:A:567:MET:HB2	1:L:581:VAL:HG22	1.98	0.45
1:B:232:ALA:HA	1:B:269:ARG:H	1.81	0.45
1:B:656:ASN:O	1:B:660:SER:OG	2.31	0.45
1:C:105:ASN:O	1:C:109:ILE:HG12	2.17	0.45
1:C:356:ILE:HG21	1:D:373:LEU:HD21	1.99	0.45
1:C:80:TYR:CD1	1:C:444:LEU:HD21	2.51	0.45
1:C:251:ILE:HD13	1:C:453:LEU:HD13	1.99	0.45
1:C:587:PRO:HD2	1:C:589:GLU:HG3	1.99	0.45
1:C:590:GLN:HA	1:C:594:VAL:HB	1.99	0.45
1:C:646:ASN:OD1	1:C:647:ALA:N	2.49	0.45
1:D:21:ALA:HA	1:D:159:ASP:OD2	2.16	0.45
1:F:21:ALA:HB2	1:F:172:HIS:NE2	2.31	0.45
1:F:355:GLN:HG2	1:G:376:ARG:NH1	2.25	0.45
1:F:663:SER:HA	1:F:666:ARG:NE	2.25	0.45
1:I:639:VAL:O	1:I:642:GLN:HG2	2.17	0.45
1:J:444:LEU:HD23	1:J:518:THR:HB	1.98	0.45
1:J:646:ASN:OD1	1:J:647:ALA:N	2.50	0.45
1:L:15:PHE:HA	1:L:18:ASP:HB3	1.97	0.45
1:L:380:ASN:OD1	1:L:381:SER:N	2.48	0.45
1:L:663:SER:HA	1:L:666:ARG:NE	2.28	0.45
1:D:24:GLU:HB2	1:D:159:ASP:OD2	2.17	0.45
1:E:21:ALA:HB2	1:E:172:HIS:NE2	2.32	0.45
1:E:418:LEU:HD23	1:E:429:GLN:HB3	1.99	0.45
1:F:429:GLN:HA	1:F:432:PHE:CD2	2.49	0.45
1:F:438:LEU:O	1:F:442:ALA:N	2.42	0.45
1:G:593:LEU:O	1:G:597:GLN:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:429:GLN:HA	1:I:432:PHE:CD2	2.51	0.45
1:I:628:GLN:O	1:I:632:LEU:HB2	2.16	0.45
1:J:639:VAL:O	1:J:642:GLN:HG2	2.17	0.45
1:K:338:ALA:O	1:K:342:ALA:N	2.48	0.45
1:J:403:TYR:OH	1:K:397:VAL:HG11	2.17	0.45
1:L:297:HIS:CG	1:L:298:ILE:H	2.35	0.45
1:A:380:ASN:OD1	1:A:381:SER:N	2.49	0.45
1:A:99:ARG:NE	1:A:525:GLN:O	2.49	0.45
1:D:238:PRO:HB3	1:D:263:PHE:CD1	2.52	0.45
1:D:436:ASN:HA	1:D:439:ASN:ND2	2.31	0.45
1:D:80:TYR:CZ	1:D:516:CYS:HB2	2.52	0.45
1:D:528:LYS:HZ3	1:D:560:LEU:HD23	1.81	0.45
1:D:538:LEU:HB3	1:D:551:LEU:HD11	1.99	0.45
1:E:80:TYR:CZ	1:E:516:CYS:HB2	2.52	0.45
1:E:640:GLU:HA	1:E:643:ASN:HD22	1.82	0.45
1:F:124:GLY:HA3	1:F:303:VAL:HG22	1.99	0.45
1:F:165:MET:HB3	1:F:304:PHE:CG	2.52	0.45
1:F:406:GLU:O	1:F:410:SER:OG	2.26	0.45
1:G:193:LEU:HD21	1:G:288:LYS:HZ1	1.81	0.45
1:F:398:PRO:HA	1:G:394:ASN:HB3	1.97	0.45
1:G:429:GLN:HA	1:G:432:PHE:HD2	1.82	0.45
1:G:564:GLY:O	1:G:568:MET:HG2	2.17	0.45
1:H:333:ILE:HG22	1:H:337:ASN:OD1	2.17	0.45
1:H:97:MET:HE2	1:H:450:GLN:HE22	1.81	0.45
1:I:252:LYS:HD2	1:I:256:ASP:HB3	1.99	0.45
1:I:220:ALA:CB	1:I:281:ILE:O	2.47	0.45
1:I:29:ALA:O	1:I:33:LEU:HB2	2.17	0.45
1:J:29:ALA:O	1:J:33:LEU:CB	2.64	0.45
1:J:45:LEU:HG	1:J:46:SER:H	1.82	0.45
1:L:238:PRO:HB3	1:L:263:PHE:CD1	2.52	0.45
1:L:426:ASN:O	1:L:429:GLN:NE2	2.50	0.45
1:L:701:ARG:HA	1:L:704:ILE:HD12	1.99	0.45
1:A:117:GLU:OE1	1:A:124:GLY:HA2	2.17	0.45
1:B:140:ASN:HB3	1:B:455:THR:OG1	2.16	0.45
1:A:354:GLU:HG2	1:B:376:ARG:HD3	1.99	0.45
1:B:47:GLN:HB2	1:B:50:THR:CG2	2.47	0.45
1:C:235:TYR:HA	1:C:265:LYS:O	2.16	0.45
1:C:275:ARG:NH2	1:C:293:ILE:O	2.36	0.45
1:D:387:GLN:O	1:D:387:GLN:HG3	2.16	0.45
1:D:538:LEU:O	1:D:542:THR:OG1	2.34	0.45
1:E:628:GLN:O	1:E:632:LEU:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:176:ILE:HD11	1:F:204:PRO:HB3	1.97	0.45
1:G:106:THR:HG23	1:G:146:ARG:HE	1.82	0.45
1:G:320:VAL:O	1:G:324:LYS:HG3	2.17	0.45
1:H:24:GLU:OE1	1:H:24:GLU:N	2.48	0.45
1:H:380:ASN:OD1	1:H:381:SER:N	2.49	0.45
1:H:80:TYR:CZ	1:H:516:CYS:HB2	2.52	0.45
1:I:232:ALA:HA	1:I:269:ARG:H	1.82	0.45
1:I:420:VAL:HB	1:I:424:ALA:HA	1.99	0.45
1:H:664:GLU:HG3	1:I:659:LEU:HD22	1.99	0.45
1:J:80:TYR:CZ	1:J:516:CYS:HB2	2.51	0.45
1:K:297:HIS:CG	1:K:298:ILE:H	2.35	0.45
1:A:201:PHE:HD1	1:A:283:CYS:HB2	1.81	0.45
1:A:649:ARG:O	1:A:653:ILE:HG13	2.17	0.45
1:A:663:SER:O	1:A:666:ARG:HG3	2.16	0.45
1:B:21:ALA:HA	1:B:159:ASP:OD2	2.16	0.45
1:B:259:ALA:HA	1:B:263:PHE:CD2	2.52	0.45
1:C:642:GLN:HA	1:C:645:LEU:HD12	1.98	0.45
1:D:640:GLU:HA	1:D:643:ASN:HD22	1.81	0.45
1:F:349:PRO:HG3	1:F:391:TYR:CZ	2.52	0.45
1:G:75:PRO:HD2	1:G:523:SER:HB3	1.98	0.45
1:H:35:PHE:CZ	1:H:321:ARG:HB2	2.52	0.45
1:I:53:TYR:O	1:I:54:ARG:NH1	2.49	0.45
1:J:203:ASN:OD1	1:J:205:ASN:N	2.35	0.45
1:K:128:LEU:HD22	1:K:144:ILE:HD12	1.99	0.45
1:K:53:TYR:CG	1:K:54:ARG:N	2.85	0.45
1:K:628:GLN:O	1:K:632:LEU:HB2	2.17	0.45
1:L:695:GLU:HA	1:L:698:HIS:ND1	2.32	0.45
1:A:35:PHE:CZ	1:A:321:ARG:HB2	2.52	0.44
1:C:26:ARG:O	1:C:30:LYS:HG3	2.17	0.44
1:C:53:TYR:CG	1:C:54:ARG:N	2.85	0.44
1:D:168:SER:HA	1:D:297:HIS:NE2	2.32	0.44
1:D:591:GLN:HA	1:D:595:GLU:CD	2.37	0.44
1:E:303:VAL:HG12	1:E:439:ASN:HB3	1.98	0.44
1:E:593:LEU:O	1:E:597:GLN:HG3	2.17	0.44
1:F:235:TYR:HE1	1:F:264:ILE:HA	1.82	0.44
1:F:642:GLN:HA	1:F:645:LEU:HD12	1.98	0.44
1:G:184:TRP:CZ3	1:G:199:PRO:HG3	2.52	0.44
1:G:228:LYS:HB2	1:G:275:ARG:HB3	1.98	0.44
1:G:609:VAL:O	1:G:612:GLN:HB2	2.17	0.44
1:I:15:PHE:HA	1:I:18:ASP:HB3	1.98	0.44
1:K:526:SER:O	1:K:530:GLN:N	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:75:PRO:HD2	1:K:523:SER:HB3	1.98	0.44
1:D:356:ILE:HG21	1:E:373:LEU:HD21	1.99	0.44
1:E:538:LEU:O	1:E:542:THR:OG1	2.34	0.44
1:F:250:ASP:OD1	1:F:251:ILE:HG13	2.17	0.44
1:H:663:SER:HA	1:H:666:ARG:HG2	1.98	0.44
1:J:15:PHE:HA	1:J:18:ASP:HB3	1.98	0.44
1:J:232:ALA:HA	1:J:269:ARG:H	1.83	0.44
1:J:75:PRO:HD2	1:J:523:SER:HB3	1.99	0.44
1:K:124:GLY:HA3	1:K:303:VAL:HG22	1.98	0.44
1:K:273:ARG:NE	1:K:296:GLU:OE2	2.50	0.44
1:K:363:TYR:CE1	1:K:372:TYR:HA	2.52	0.44
1:K:623:ALA:HA	1:K:626:GLN:CD	2.38	0.44
1:K:695:GLU:HA	1:K:698:HIS:CE1	2.51	0.44
1:L:140:ASN:HB3	1:L:455:THR:OG1	2.16	0.44
1:L:249:ARG:HG3	1:L:250:ASP:N	2.32	0.44
1:A:203:ASN:OD1	1:A:205:ASN:N	2.33	0.44
1:A:657:MET:SD	1:B:655:ASN:ND2	2.90	0.44
1:B:514:TYR:HB2	1:C:136:SER:OG	2.17	0.44
1:C:21:ALA:HB2	1:C:172:HIS:NE2	2.32	0.44
1:C:259:ALA:HA	1:C:263:PHE:CD2	2.53	0.44
1:C:614:VAL:HG11	1:D:609:VAL:HG11	1.99	0.44
1:B:653:ILE:HG12	1:C:648:ALA:HA	2.00	0.44
1:D:646:ASN:HA	1:E:644:GLN:HG2	1.99	0.44
1:E:21:ALA:HA	1:E:159:ASP:OD2	2.16	0.44
1:E:246:TYR:HB2	1:E:510:ILE:HG13	1.99	0.44
1:F:21:ALA:HB2	1:F:172:HIS:CD2	2.52	0.44
1:F:363:TYR:CE1	1:F:372:TYR:HA	2.52	0.44
1:G:398:PRO:O	1:G:399:GLN:HG2	2.18	0.44
1:H:444:LEU:HD23	1:H:518:THR:HB	1.99	0.44
1:H:444:LEU:O	1:H:447:TYR:HB3	2.18	0.44
1:H:664:GLU:OE2	1:I:666:ARG:NH2	2.50	0.44
1:J:110:ALA:HB1	1:J:126:TRP:CE3	2.51	0.44
1:J:99:ARG:NH2	1:J:525:GLN:HA	2.31	0.44
1:J:78:VAL:HA	1:J:520:VAL:HA	1.99	0.44
1:K:168:SER:HA	1:K:297:HIS:NE2	2.32	0.44
1:K:201:PHE:HD1	1:K:283:CYS:HB2	1.80	0.44
1:K:324:LYS:O	1:K:327:GLN:HB2	2.18	0.44
1:L:444:LEU:O	1:L:448:VAL:HG23	2.17	0.44
1:L:526:SER:O	1:L:530:GLN:N	2.48	0.44
1:A:223:TYR:HE1	1:A:278:LYS:HG3	1.81	0.44
1:A:578:GLN:HA	1:A:597:GLN:HE21	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:591:GLN:HA	1:A:595:GLU:CD	2.38	0.44
1:B:26:ARG:O	1:B:30:LYS:HG3	2.16	0.44
1:C:248:LYS:HG2	1:C:511:ARG:HH21	1.81	0.44
1:D:458:ARG:NH2	1:D:500:ALA:HB1	2.32	0.44
1:E:120:GLU:HA	1:E:320:VAL:HB	1.99	0.44
1:E:231:THR:HG22	1:E:249:ARG:HE	1.82	0.44
1:E:250:ASP:OD1	1:E:251:ILE:HG13	2.17	0.44
1:G:223:TYR:HE1	1:G:278:LYS:HG3	1.83	0.44
1:G:363:TYR:CE1	1:G:372:TYR:HA	2.51	0.44
1:G:387:GLN:O	1:G:387:GLN:HG3	2.17	0.44
1:H:124:GLY:CA	1:H:303:VAL:HG22	2.48	0.44
1:H:203:ASN:OD1	1:H:205:ASN:N	2.33	0.44
1:H:355:GLN:HA	1:H:375:ASN:HB3	1.98	0.44
1:H:628:GLN:O	1:H:632:LEU:HB2	2.18	0.44
1:I:193:LEU:HD21	1:I:288:LYS:HZ3	1.82	0.44
1:J:124:GLY:CA	1:J:303:VAL:HG22	2.47	0.44
1:J:47:GLN:HB2	1:J:50:THR:HG21	2.00	0.44
1:K:203:ASN:HD21	1:K:209:PHE:HZ	1.65	0.44
1:L:444:LEU:HD23	1:L:518:THR:HB	1.99	0.44
1:A:250:ASP:OD1	1:A:251:ILE:HG13	2.17	0.44
1:B:380:ASN:OD1	1:B:381:SER:N	2.49	0.44
1:B:47:GLN:HB2	1:B:50:THR:HG21	2.00	0.44
1:B:590:GLN:HA	1:B:594:VAL:HB	1.99	0.44
1:B:398:PRO:HA	1:C:394:ASN:HB3	1.99	0.44
1:C:663:SER:O	1:C:666:ARG:HG3	2.18	0.44
1:E:649:ARG:O	1:E:653:ILE:HG13	2.17	0.44
1:G:250:ASP:OD1	1:G:251:ILE:HG13	2.17	0.44
1:G:613:GLY:CA	1:G:616:LEU:HD13	2.38	0.44
1:H:27:ARG:HH11	1:H:313:LYS:HE3	1.83	0.44
1:I:21:ALA:HB2	1:I:172:HIS:NE2	2.32	0.44
1:I:233:PHE:HB2	1:I:249:ARG:HB3	2.00	0.44
1:H:657:MET:SD	1:I:655:ASN:ND2	2.91	0.44
1:J:233:PHE:HB2	1:J:249:ARG:HB3	1.98	0.44
1:J:526:SER:O	1:J:530:GLN:N	2.45	0.44
1:J:649:ARG:O	1:J:653:ILE:HG13	2.16	0.44
1:K:47:GLN:HB2	1:K:50:THR:HG21	2.00	0.44
1:K:614:VAL:HG11	1:L:609:VAL:HG11	2.00	0.44
1:L:176:ILE:HD11	1:L:204:PRO:HB3	1.99	0.44
1:L:418:LEU:HD23	1:L:429:GLN:HB3	2.00	0.44
1:L:613:GLY:CA	1:L:616:LEU:HD12	2.47	0.44
1:A:420:VAL:HB	1:A:424:ALA:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:613:GLY:CA	1:A:616:LEU:HD12	2.34	0.44
1:B:235:TYR:CE1	1:B:264:ILE:HA	2.52	0.44
1:B:27:ARG:HH11	1:B:313:LYS:HE3	1.83	0.44
1:B:444:LEU:HD23	1:B:518:THR:HB	2.00	0.44
1:C:448:VAL:HA	1:C:451:ASP:OD2	2.18	0.44
1:C:444:LEU:HD23	1:C:518:THR:HB	2.00	0.44
1:D:228:LYS:HB2	1:D:275:ARG:HB3	1.99	0.44
1:D:329:LEU:O	1:D:333:ILE:HG13	2.17	0.44
1:E:162:SER:OG	1:E:164:LEU:O	2.35	0.44
1:F:106:THR:HG23	1:F:146:ARG:HE	1.82	0.44
1:F:418:LEU:HD23	1:F:429:GLN:HB3	1.99	0.44
1:G:124:GLY:CA	1:G:303:VAL:HG22	2.48	0.44
1:G:223:TYR:CE1	1:G:278:LYS:HG3	2.52	0.44
1:G:99:ARG:NE	1:G:525:GLN:O	2.50	0.44
1:A:162:SER:OG	1:A:164:LEU:O	2.35	0.44
1:B:525:GLN:HB2	1:B:529:GLN:OE1	2.17	0.44
1:C:348:LYS:HB2	1:D:372:TYR:CD2	2.53	0.44
1:C:75:PRO:HD2	1:C:523:SER:HB3	1.99	0.44
1:C:640:GLU:HA	1:C:643:ASN:HD22	1.83	0.44
1:D:29:ALA:O	1:D:33:LEU:HB2	2.18	0.44
1:E:99:ARG:NE	1:E:525:GLN:O	2.50	0.44
1:F:126:TRP:CD1	1:F:146:ARG:HG3	2.53	0.44
1:F:581:VAL:HG22	1:G:567:MET:HB2	2.00	0.44
1:H:278:LYS:HE2	1:H:280:ILE:HD11	1.99	0.44
1:I:406:GLU:O	1:I:410:SER:OG	2.28	0.44
1:I:45:LEU:HG	1:I:46:SER:H	1.82	0.44
1:I:99:ARG:NH2	1:I:525:GLN:HA	2.32	0.44
1:J:21:ALA:HB2	1:J:172:HIS:NE2	2.32	0.44
1:J:320:VAL:O	1:J:323:THR:OG1	2.19	0.44
1:J:436:ASN:HA	1:J:439:ASN:ND2	2.33	0.44
1:J:525:GLN:HB2	1:J:529:GLN:OE1	2.18	0.44
1:I:581:VAL:HG22	1:J:567:MET:HB2	1.99	0.44
1:K:29:ALA:O	1:K:33:LEU:CB	2.66	0.44
1:A:29:ALA:O	1:A:33:LEU:HB2	2.17	0.44
1:B:639:VAL:O	1:B:642:GLN:HG2	2.17	0.44
1:A:664:GLU:HG3	1:B:659:LEU:HD22	1.99	0.44
1:C:140:ASN:HB3	1:C:455:THR:OG1	2.17	0.44
1:C:559:LEU:HB3	1:C:565:VAL:HB	2.00	0.44
1:B:306:GLU:OE2	1:C:61:ARG:NE	2.50	0.44
1:E:573:ASN:HA	1:E:576:LEU:HD12	2.00	0.44
1:F:235:TYR:CE1	1:F:264:ILE:HA	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:525:GLN:HB2	1:F:529:GLN:OE1	2.17	0.44
1:F:656:ASN:O	1:F:660:SER:OG	2.35	0.44
1:G:133:GLU:O	1:G:137:PRO:HB3	2.18	0.44
1:G:646:ASN:HA	1:H:644:GLN:HG2	1.99	0.44
1:I:250:ASP:OD1	1:I:251:ILE:HG13	2.17	0.44
1:I:309:PHE:HB2	1:J:150:HIS:HB2	2.00	0.44
1:I:363:TYR:CE1	1:I:372:TYR:HA	2.50	0.44
1:J:250:ASP:OD1	1:J:251:ILE:HG13	2.17	0.44
1:J:140:ASN:HB3	1:J:455:THR:OG1	2.18	0.44
1:K:124:GLY:CA	1:K:303:VAL:HG22	2.48	0.44
1:K:204:PRO:HD3	1:K:218:GLN:HG2	2.00	0.44
1:K:21:ALA:HB2	1:K:172:HIS:CD2	2.53	0.44
1:A:349:PRO:HG3	1:A:391:TYR:CZ	2.53	0.44
1:B:458:ARG:NH2	1:B:500:ALA:HB1	2.33	0.44
1:C:320:VAL:O	1:C:324:LYS:HG3	2.18	0.44
1:C:45:LEU:HG	1:C:46:SER:H	1.81	0.44
1:C:701:ARG:HA	1:C:704:ILE:HD12	1.99	0.44
1:C:354:GLU:HG2	1:D:376:ARG:HD3	2.00	0.44
1:E:29:ALA:O	1:E:33:LEU:HB2	2.17	0.44
1:G:235:TYR:HE1	1:G:264:ILE:HA	1.83	0.44
1:H:526:SER:O	1:H:530:GLN:N	2.47	0.44
1:I:593:LEU:O	1:I:597:GLN:HG3	2.17	0.44
1:K:10:SER:O	1:K:14:ARG:HG2	2.18	0.44
1:K:151:SER:HB2	1:K:155:HIS:CE1	2.52	0.44
1:K:252:LYS:HD2	1:K:256:ASP:HB3	1.99	0.44
1:K:350:PHE:HB2	1:K:390:ALA:HB3	2.00	0.44
1:K:590:GLN:HA	1:K:594:VAL:HB	2.00	0.44
1:L:235:TYR:HA	1:L:265:LYS:O	2.18	0.44
1:L:35:PHE:CZ	1:L:321:ARG:HB2	2.53	0.44
1:L:383:ASP:O	1:L:384:LEU:HD12	2.18	0.44
1:L:53:TYR:CG	1:L:54:ARG:N	2.86	0.44
1:L:646:ASN:OD1	1:L:647:ALA:N	2.50	0.44
1:L:80:TYR:CD1	1:L:444:LEU:HD21	2.52	0.44
1:A:660:SER:O	1:A:663:SER:OG	2.24	0.43
1:B:162:SER:OG	1:B:167:LYS:HA	2.17	0.43
1:D:21:ALA:HB2	1:D:172:HIS:CD2	2.53	0.43
1:D:514:TYR:HB2	1:E:136:SER:OG	2.17	0.43
1:F:203:ASN:HD21	1:F:209:PHE:HZ	1.65	0.43
1:F:320:VAL:O	1:F:323:THR:OG1	2.19	0.43
1:F:57:PHE:HB2	1:F:334:MET:SD	2.58	0.43
1:F:663:SER:O	1:F:666:ARG:HG3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:117:GLU:OE1	1:H:124:GLY:HA2	2.18	0.43
1:J:333:ILE:HG22	1:J:337:ASN:OD1	2.19	0.43
1:L:281:ILE:HG12	1:L:287:LEU:H	1.83	0.43
1:L:663:SER:O	1:L:666:ARG:HG3	2.17	0.43
1:A:228:LYS:HB2	1:A:275:ARG:HB3	1.99	0.43
1:A:526:SER:O	1:A:530:GLN:N	2.45	0.43
1:B:701:ARG:HA	1:B:704:ILE:HD12	2.00	0.43
1:C:10:SER:O	1:C:14:ARG:HG2	2.18	0.43
1:C:278:LYS:HE2	1:C:280:ILE:HD11	2.00	0.43
1:C:168:SER:HA	1:C:297:HIS:NE2	2.34	0.43
1:E:248:LYS:CD	1:E:251:ILE:HB	2.43	0.43
1:F:26:ARG:O	1:F:30:LYS:HG3	2.18	0.43
1:H:235:TYR:CE1	1:H:264:ILE:HA	2.53	0.43
1:H:9:GLU:HB3	1:H:12:LEU:HG	2.00	0.43
1:I:124:GLY:CA	1:I:303:VAL:HG22	2.49	0.43
1:I:140:ASN:HB3	1:I:455:THR:OG1	2.18	0.43
1:I:514:TYR:HB2	1:J:136:SER:OG	2.18	0.43
1:J:695:GLU:HA	1:J:698:HIS:ND1	2.34	0.43
1:K:162:SER:OG	1:K:164:LEU:O	2.36	0.43
1:L:333:ILE:HG22	1:L:337:ASN:OD1	2.18	0.43
1:L:590:GLN:HA	1:L:594:VAL:HB	1.99	0.43
1:A:140:ASN:HB3	1:A:455:THR:OG1	2.18	0.43
1:A:564:GLY:O	1:A:568:MET:HG2	2.18	0.43
1:B:609:VAL:O	1:B:612:GLN:HB2	2.18	0.43
1:C:338:ALA:O	1:C:342:ALA:N	2.46	0.43
1:C:65:ARG:O	1:C:69:SER:HB2	2.17	0.43
1:D:204:PRO:HD3	1:D:218:GLN:HG2	2.00	0.43
1:D:587:PRO:HD2	1:D:589:GLU:HG3	1.99	0.43
1:E:383:ASP:O	1:E:384:LEU:HD12	2.19	0.43
1:F:444:LEU:O	1:F:448:VAL:HG23	2.17	0.43
1:G:444:LEU:HD23	1:G:518:THR:HB	2.00	0.43
1:G:525:GLN:HB2	1:G:529:GLN:OE1	2.18	0.43
1:H:21:ALA:HB2	1:H:172:HIS:CD2	2.52	0.43
1:I:151:SER:HB2	1:I:155:HIS:CE1	2.52	0.43
1:I:223:TYR:HE1	1:I:278:LYS:HG3	1.84	0.43
1:I:350:PHE:N	1:I:390:ALA:O	2.36	0.43
1:J:444:LEU:O	1:J:447:TYR:HB3	2.18	0.43
1:K:162:SER:OG	1:K:167:LYS:HA	2.18	0.43
1:K:99:ARG:NH2	1:K:525:GLN:HA	2.32	0.43
1:K:649:ARG:O	1:K:653:ILE:HG13	2.18	0.43
1:L:29:ALA:O	1:L:33:LEU:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:33:LEU:HA	1:L:33:LEU:HD12	1.89	0.43
1:L:87:ARG:HD3	1:L:89:ASP:HB2	2.00	0.43
1:A:383:ASP:O	1:A:384:LEU:HD12	2.19	0.43
1:A:528:LYS:HE3	1:A:558:THR:HB	2.01	0.43
1:B:35:PHE:CZ	1:B:321:ARG:HB2	2.53	0.43
1:B:538:LEU:O	1:B:542:THR:OG1	2.37	0.43
1:B:99:ARG:NH2	1:B:525:GLN:HA	2.33	0.43
1:C:35:PHE:CZ	1:C:321:ARG:HB2	2.54	0.43
1:D:31:ASN:O	1:D:35:PHE:HD2	2.02	0.43
1:E:398:PRO:O	1:E:399:GLN:HG2	2.19	0.43
1:E:526:SER:O	1:E:530:GLN:N	2.49	0.43
1:E:657:MET:SD	1:F:655:ASN:ND2	2.91	0.43
1:G:238:PRO:HB3	1:G:263:PHE:CD1	2.53	0.43
1:G:649:ARG:O	1:G:653:ILE:HG13	2.19	0.43
1:H:436:ASN:HA	1:H:439:ASN:ND2	2.33	0.43
1:H:438:LEU:O	1:H:442:ALA:N	2.40	0.43
1:I:532:ARG:HH22	1:I:560:LEU:HD11	1.83	0.43
1:I:564:GLY:O	1:I:568:MET:HG2	2.18	0.43
1:H:653:ILE:HG12	1:I:648:ALA:HA	1.99	0.43
1:J:383:ASP:O	1:J:384:LEU:HD12	2.18	0.43
1:J:663:SER:O	1:J:666:ARG:HG3	2.18	0.43
1:K:126:TRP:CD1	1:K:146:ARG:HG3	2.53	0.43
1:K:383:ASP:O	1:K:384:LEU:HD12	2.18	0.43
1:K:398:PRO:O	1:K:399:GLN:HG2	2.18	0.43
1:K:578:GLN:HA	1:K:597:GLN:HE21	1.82	0.43
1:L:114:ALA:O	1:L:118:GLN:HB2	2.19	0.43
1:A:376:ARG:NH1	1:L:355:GLN:HG2	2.27	0.43
1:L:525:GLN:HB2	1:L:529:GLN:OE1	2.19	0.43
1:A:672:VAL:HA	1:A:675:PHE:CD2	2.54	0.43
1:B:114:ALA:O	1:B:118:GLN:HB2	2.18	0.43
1:B:436:ASN:HA	1:B:439:ASN:ND2	2.32	0.43
1:D:297:HIS:CG	1:D:298:ILE:H	2.36	0.43
1:D:590:GLN:HA	1:D:594:VAL:HB	1.99	0.43
1:E:546:THR:OG1	1:E:547:PRO:HD3	2.19	0.43
1:E:99:ARG:NH2	1:E:525:GLN:HA	2.34	0.43
1:F:225:VAL:HG22	1:F:276:VAL:HG12	2.01	0.43
1:F:220:ALA:CB	1:F:281:ILE:O	2.50	0.43
1:F:55:GLY:N	1:F:335:SER:OG	2.49	0.43
1:F:77:ASP:HB2	1:F:522:PRO:O	2.19	0.43
1:F:664:GLU:HG3	1:G:659:LEU:HD22	1.99	0.43
1:G:695:GLU:HA	1:G:698:HIS:ND1	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:248:LYS:HG2	1:H:511:ARG:HH21	1.83	0.43
1:H:83:LYS:HD2	1:H:515:GLU:CG	2.49	0.43
1:I:114:ALA:O	1:I:118:GLN:HB2	2.18	0.43
1:I:21:ALA:HB1	1:I:157:ILE:HB	2.01	0.43
1:K:514:TYR:HB2	1:L:136:SER:OG	2.18	0.43
1:K:695:GLU:HA	1:K:698:HIS:ND1	2.33	0.43
1:L:546:THR:OG1	1:L:547:PRO:HD3	2.19	0.43
1:L:591:GLN:HA	1:L:595:GLU:CD	2.38	0.43
1:B:133:GLU:O	1:B:137:PRO:HB3	2.19	0.43
1:C:434:THR:HG21	1:D:72:ARG:HG3	2.01	0.43
1:D:201:PHE:HD1	1:D:283:CYS:HB2	1.84	0.43
1:E:117:GLU:OE1	1:E:124:GLY:HA2	2.19	0.43
1:E:223:TYR:HE1	1:E:278:LYS:HG3	1.83	0.43
1:E:436:ASN:HA	1:E:439:ASN:ND2	2.34	0.43
1:H:252:LYS:HD2	1:H:256:ASP:HB3	2.00	0.43
1:H:89:ASP:O	1:H:92:ASP:HB2	2.18	0.43
1:I:248:LYS:HE3	1:I:252:LYS:HB2	2.00	0.43
1:I:528:LYS:NZ	1:I:559:LEU:O	2.44	0.43
1:I:640:GLU:HA	1:I:643:ASN:HD22	1.83	0.43
1:I:642:GLN:HA	1:I:645:LEU:HD12	1.99	0.43
1:I:695:GLU:HA	1:I:698:HIS:ND1	2.33	0.43
1:J:53:TYR:CG	1:J:54:ARG:N	2.86	0.43
1:J:609:VAL:O	1:J:612:GLN:HB2	2.19	0.43
1:J:663:SER:HA	1:J:666:ARG:NE	2.29	0.43
1:K:193:LEU:HD23	1:K:193:LEU:HA	1.90	0.43
1:K:403:TYR:OH	1:L:397:VAL:HG11	2.19	0.43
1:L:72:ARG:HH22	1:L:112:ASN:HA	1.83	0.43
1:A:373:LEU:HD21	1:L:356:ILE:HG21	2.01	0.43
1:A:609:VAL:O	1:A:612:GLN:HB2	2.19	0.43
1:B:353:PRO:HD3	1:C:374:LEU:O	2.19	0.43
1:B:383:ASP:O	1:B:384:LEU:HD12	2.19	0.43
1:C:47:GLN:HB2	1:C:50:THR:CG2	2.48	0.43
1:C:695:GLU:HA	1:C:698:HIS:CE1	2.54	0.43
1:D:383:ASP:O	1:D:384:LEU:HD12	2.18	0.43
1:D:662:GLN:HA	1:D:665:PHE:CD2	2.54	0.43
1:F:383:ASP:O	1:F:384:LEU:HD12	2.18	0.43
1:G:235:TYR:CE1	1:G:264:ILE:HA	2.53	0.43
1:H:193:LEU:HD21	1:H:288:LYS:HZ3	1.82	0.43
1:H:303:VAL:HG12	1:H:439:ASN:HB3	1.99	0.43
1:H:642:GLN:HA	1:H:645:LEU:HD12	2.01	0.43
1:I:333:ILE:HG22	1:I:337:ASN:OD1	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:35:PHE:CZ	1:I:321:ARG:HB2	2.53	0.43
1:I:78:VAL:HA	1:I:520:VAL:HA	2.00	0.43
1:I:70:GLU:O	1:I:73:GLN:HG3	2.18	0.43
1:J:21:ALA:HA	1:J:159:ASP:OD2	2.19	0.43
1:J:249:ARG:HG3	1:J:250:ASP:N	2.33	0.43
1:K:249:ARG:HG3	1:K:250:ASP:N	2.34	0.43
1:L:640:GLU:HA	1:L:643:ASN:HD22	1.84	0.43
1:A:146:ARG:HG2	1:A:148:PRO:HD3	2.01	0.43
1:A:376:ARG:HD2	1:L:352:TRP:CB	2.40	0.43
1:B:53:TYR:CG	1:B:54:ARG:N	2.87	0.43
1:C:662:GLN:HA	1:C:665:PHE:CD2	2.53	0.43
1:D:126:TRP:CD1	1:D:146:ARG:HG3	2.54	0.43
1:D:165:MET:HB3	1:D:304:PHE:CG	2.53	0.43
1:E:10:SER:O	1:E:14:ARG:HG2	2.18	0.43
1:E:591:GLN:HA	1:E:595:GLU:CD	2.38	0.43
1:G:120:GLU:HA	1:G:320:VAL:HB	1.99	0.43
1:G:272:LYS:N	1:H:134:ASP:OD2	2.52	0.43
1:G:383:ASP:O	1:G:384:LEU:HD12	2.18	0.43
1:H:162:SER:HB2	1:H:170:ALA:HB2	1.99	0.43
1:H:168:SER:HA	1:H:297:HIS:NE2	2.34	0.43
1:I:47:GLN:HB2	1:I:50:THR:HG21	2.01	0.43
1:I:662:GLN:HA	1:I:665:PHE:CD2	2.53	0.43
1:K:350:PHE:CE1	1:L:372:TYR:HB3	2.53	0.43
1:K:429:GLN:HA	1:K:432:PHE:HD2	1.84	0.43
1:K:525:GLN:HB2	1:K:529:GLN:OE1	2.19	0.43
1:K:593:LEU:O	1:K:597:GLN:HG3	2.19	0.43
1:L:21:ALA:HB2	1:L:172:HIS:CD2	2.54	0.43
1:B:355:GLN:HA	1:B:375:ASN:HB3	2.01	0.43
1:C:162:SER:OG	1:C:167:LYS:HA	2.19	0.43
1:C:233:PHE:HB2	1:C:249:ARG:HB3	1.99	0.43
1:E:133:GLU:O	1:E:137:PRO:HB3	2.19	0.43
1:E:193:LEU:HD21	1:E:288:LYS:HZ1	1.82	0.43
1:F:354:GLU:HG2	1:G:376:ARG:HD3	2.00	0.43
1:H:24:GLU:HB2	1:H:159:ASP:OD2	2.19	0.43
1:H:444:LEU:O	1:H:448:VAL:HG23	2.18	0.43
1:I:438:LEU:HD11	1:J:108:LYS:HD3	1.99	0.43
1:I:612:GLN:O	1:I:615:LEU:HD22	2.19	0.43
1:J:38:VAL:HG22	1:J:43:ASP:OD1	2.19	0.43
1:K:193:LEU:HD21	1:K:288:LYS:HZ3	1.83	0.43
1:K:233:PHE:HB2	1:K:249:ARG:HB3	2.00	0.43
1:K:225:VAL:HG22	1:K:276:VAL:HG12	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:410:SER:O	1:K:413:LYS:HG2	2.18	0.43
1:K:42:ASP:HB3	1:K:44:TRP:HD1	1.82	0.43
1:K:434:THR:HG21	1:L:72:ARG:HG3	2.01	0.43
1:B:538:LEU:HB3	1:B:551:LEU:HD11	2.01	0.43
1:C:538:LEU:HB3	1:C:551:LEU:HD11	2.01	0.43
1:C:161:ASN:ND2	1:D:183:GLY:HA3	2.34	0.43
1:D:99:ARG:NE	1:D:525:GLN:O	2.52	0.43
1:E:333:ILE:HG22	1:E:337:ASN:OD1	2.18	0.43
1:E:47:GLN:HB2	1:E:50:THR:HG21	1.99	0.43
1:F:228:LYS:HB2	1:F:275:ARG:HB3	2.01	0.43
1:G:99:ARG:NH2	1:G:525:GLN:HA	2.34	0.43
1:H:621:GLU:OE2	1:I:616:LEU:HA	2.19	0.43
1:I:663:SER:HA	1:I:666:ARG:HG2	2.01	0.43
1:L:613:GLY:O	1:L:616:LEU:N	2.51	0.43
1:A:559:LEU:HB3	1:A:565:VAL:HB	2.01	0.42
1:B:75:PRO:HD2	1:B:523:SER:HB3	2.01	0.42
1:C:117:GLU:OE1	1:C:124:GLY:HA2	2.19	0.42
1:C:323:THR:HG22	1:C:415:VAL:CG2	2.49	0.42
1:C:411:ALA:O	1:C:415:VAL:HG22	2.19	0.42
1:D:57:PHE:HB2	1:D:334:MET:SD	2.59	0.42
1:E:525:GLN:HB2	1:E:529:GLN:OE1	2.19	0.42
1:F:133:GLU:O	1:F:137:PRO:HB3	2.19	0.42
1:F:146:ARG:HG2	1:F:148:PRO:HD3	2.01	0.42
1:F:32:ASP:HA	1:F:35:PHE:CD2	2.54	0.42
1:F:380:ASN:OD1	1:F:381:SER:N	2.50	0.42
1:F:398:PRO:O	1:F:399:GLN:HG2	2.19	0.42
1:G:275:ARG:NH2	1:G:293:ILE:O	2.38	0.42
1:H:338:ALA:O	1:H:342:ALA:N	2.52	0.42
1:H:514:TYR:HB2	1:I:136:SER:OG	2.19	0.42
1:I:538:LEU:O	1:I:542:THR:OG1	2.37	0.42
1:I:559:LEU:HB3	1:I:565:VAL:HB	2.01	0.42
1:I:353:PRO:HD3	1:J:374:LEU:O	2.19	0.42
1:K:35:PHE:CZ	1:K:321:ARG:HB2	2.54	0.42
1:K:559:LEU:HB3	1:K:565:VAL:HB	2.01	0.42
1:L:110:ALA:HB1	1:L:126:TRP:CE3	2.53	0.42
1:L:429:GLN:HA	1:L:432:PHE:CD2	2.53	0.42
1:A:126:TRP:CD1	1:A:146:ARG:HG3	2.54	0.42
1:A:99:ARG:NH2	1:A:525:GLN:HA	2.34	0.42
1:B:252:LYS:HD2	1:B:256:ASP:HB3	2.01	0.42
1:C:114:ALA:O	1:C:118:GLN:HB2	2.19	0.42
1:C:42:ASP:HB3	1:C:44:TRP:HD1	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:564:GLY:O	1:C:568:MET:HG2	2.19	0.42
1:D:664:GLU:HG3	1:E:659:LEU:HD22	2.01	0.42
1:E:403:TYR:OH	1:F:397:VAL:HG11	2.19	0.42
1:F:436:ASN:HA	1:F:439:ASN:ND2	2.34	0.42
1:F:695:GLU:HA	1:F:698:HIS:ND1	2.34	0.42
1:I:248:LYS:CD	1:I:251:ILE:HB	2.42	0.42
1:I:538:LEU:HB3	1:I:551:LEU:HD11	2.01	0.42
1:J:133:GLU:O	1:J:137:PRO:HB3	2.19	0.42
1:J:578:GLN:HA	1:J:597:GLN:HE21	1.83	0.42
1:L:231:THR:HG22	1:L:249:ARG:HE	1.84	0.42
1:B:10:SER:O	1:B:14:ARG:HG2	2.19	0.42
1:C:31:ASN:O	1:C:35:PHE:HD2	2.02	0.42
1:C:383:ASP:O	1:C:384:LEU:HD12	2.19	0.42
1:D:430:VAL:O	1:D:433:ASP:HB2	2.20	0.42
1:D:546:THR:OG1	1:D:547:PRO:HD3	2.19	0.42
1:E:297:HIS:CG	1:E:298:ILE:H	2.38	0.42
1:E:70:GLU:O	1:E:73:GLN:HG3	2.18	0.42
1:H:21:ALA:HB2	1:H:172:HIS:NE2	2.34	0.42
1:H:42:ASP:OD2	1:H:44:TRP:NE1	2.53	0.42
1:I:383:ASP:O	1:I:384:LEU:HD12	2.19	0.42
1:K:444:LEU:HD23	1:K:518:THR:HB	2.01	0.42
1:L:649:ARG:O	1:L:653:ILE:HG13	2.19	0.42
1:A:204:PRO:HD3	1:A:218:GLN:HG2	2.01	0.42
1:B:309:PHE:HB2	1:C:150:HIS:HB2	2.01	0.42
1:C:400:ALA:O	1:C:404:MET:HB2	2.19	0.42
1:D:220:ALA:CB	1:D:281:ILE:O	2.52	0.42
1:E:514:TYR:HB2	1:F:136:SER:OG	2.18	0.42
1:E:661:LYS:HE3	1:E:665:PHE:CZ	2.54	0.42
1:F:152:ALA:HA	1:F:155:HIS:HB2	2.01	0.42
1:G:21:ALA:HB1	1:G:157:ILE:HB	2.01	0.42
1:H:126:TRP:CD1	1:H:146:ARG:HG3	2.54	0.42
1:H:204:PRO:HD3	1:H:218:GLN:HG2	2.02	0.42
1:H:320:VAL:O	1:H:324:LYS:HG3	2.20	0.42
1:J:223:TYR:CE1	1:J:278:LYS:HG3	2.55	0.42
1:J:27:ARG:HH11	1:J:313:LYS:HE3	1.84	0.42
1:L:613:GLY:HA2	1:L:616:LEU:HD12	2.01	0.42
1:A:337:ASN:HA	1:A:340:ILE:HD12	2.01	0.42
1:A:374:LEU:O	1:L:353:PRO:HD3	2.18	0.42
1:A:590:GLN:HA	1:A:594:VAL:HB	2.01	0.42
1:A:695:GLU:HA	1:A:698:HIS:ND1	2.35	0.42
1:B:281:ILE:HG23	1:B:286:VAL:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:133:GLU:O	1:C:137:PRO:HB3	2.19	0.42
1:D:72:ARG:HH22	1:D:112:ASN:HA	1.84	0.42
1:D:233:PHE:HB2	1:D:249:ARG:HB3	2.01	0.42
1:D:363:TYR:CE1	1:D:372:TYR:HA	2.54	0.42
1:D:614:VAL:HG11	1:E:609:VAL:HG11	2.00	0.42
1:E:24:GLU:HB2	1:E:159:ASP:OD2	2.20	0.42
1:E:78:VAL:HA	1:E:520:VAL:HA	2.02	0.42
1:E:53:TYR:O	1:E:54:ARG:NH1	2.48	0.42
1:G:248:LYS:CD	1:G:251:ILE:HB	2.44	0.42
1:G:31:ASN:O	1:G:35:PHE:HD2	2.02	0.42
1:H:586:THR:CG2	1:H:590:GLN:HE22	2.27	0.42
1:I:26:ARG:O	1:I:30:LYS:HG3	2.19	0.42
1:I:57:PHE:HB2	1:I:334:MET:SD	2.60	0.42
1:I:80:TYR:CZ	1:I:516:CYS:HB2	2.54	0.42
1:J:65:ARG:O	1:J:69:SER:HB2	2.20	0.42
1:K:133:GLU:O	1:K:137:PRO:HB3	2.19	0.42
1:K:99:ARG:NE	1:K:525:GLN:O	2.51	0.42
1:L:447:TYR:O	1:L:450:GLN:HB3	2.19	0.42
1:L:671:THR:HG22	1:L:675:PHE:CZ	2.54	0.42
1:A:281:ILE:HG12	1:A:287:LEU:H	1.84	0.42
1:A:652:GLU:O	1:A:656:ASN:HB2	2.19	0.42
1:B:77:ASP:HB2	1:B:522:PRO:O	2.18	0.42
1:D:411:ALA:O	1:D:415:VAL:HG22	2.19	0.42
1:D:429:GLN:HA	1:D:432:PHE:HD2	1.84	0.42
1:D:663:SER:HA	1:D:666:ARG:HG2	2.01	0.42
1:E:233:PHE:HB2	1:E:249:ARG:HB3	2.01	0.42
1:E:26:ARG:O	1:E:30:LYS:HG3	2.20	0.42
1:E:320:VAL:O	1:E:324:LYS:HG3	2.20	0.42
1:E:701:ARG:HA	1:E:704:ILE:HD12	2.02	0.42
1:G:232:ALA:HA	1:G:269:ARG:H	1.84	0.42
1:H:248:LYS:CD	1:H:251:ILE:HB	2.41	0.42
1:I:444:LEU:HD23	1:I:518:THR:HB	2.00	0.42
1:J:248:LYS:CD	1:J:251:ILE:HB	2.43	0.42
1:J:663:SER:HA	1:J:666:ARG:HG2	2.02	0.42
1:K:447:TYR:O	1:K:450:GLN:HB3	2.19	0.42
1:L:21:ALA:HB2	1:L:172:HIS:NE2	2.35	0.42
1:L:252:LYS:HD2	1:L:256:ASP:HB3	2.01	0.42
1:A:21:ALA:HB1	1:A:157:ILE:HB	2.00	0.42
1:A:31:ASN:O	1:A:35:PHE:HD2	2.01	0.42
1:B:165:MET:HB3	1:B:304:PHE:CG	2.55	0.42
1:B:236:GLN:HG2	1:B:244:VAL:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:53:TYR:O	1:C:54:ARG:NH1	2.50	0.42
1:D:695:GLU:HA	1:D:698:HIS:ND1	2.35	0.42
1:E:31:ASN:O	1:E:35:PHE:HD2	2.02	0.42
1:F:338:ALA:O	1:F:342:ALA:N	2.52	0.42
1:G:142:GLN:NE2	1:G:455:THR:OG1	2.53	0.42
1:G:546:THR:OG1	1:G:547:PRO:HD3	2.19	0.42
1:J:10:SER:O	1:J:14:ARG:HG2	2.20	0.42
1:L:420:VAL:HB	1:L:424:ALA:HA	2.00	0.42
1:A:193:LEU:HD23	1:A:193:LEU:HA	1.92	0.42
1:A:252:LYS:HD2	1:A:256:ASP:HB3	2.00	0.42
1:A:297:HIS:CG	1:A:298:ILE:H	2.37	0.42
1:B:307:TRP:HE1	1:B:314:GLU:HG2	1.85	0.42
1:B:539:LEU:HG	1:B:551:LEU:HD22	2.02	0.42
1:A:653:ILE:HG12	1:B:648:ALA:HA	2.01	0.42
1:D:117:GLU:OE1	1:D:124:GLY:HA2	2.19	0.42
1:D:248:LYS:CD	1:D:251:ILE:HB	2.44	0.42
1:E:162:SER:OG	1:E:167:LYS:HA	2.20	0.42
1:E:275:ARG:NH2	1:E:293:ILE:O	2.40	0.42
1:E:564:GLY:O	1:E:568:MET:HG2	2.19	0.42
1:G:249:ARG:HG3	1:G:250:ASP:N	2.34	0.42
1:G:354:GLU:HG2	1:H:376:ARG:HD3	2.01	0.42
1:H:383:ASP:O	1:H:384:LEU:HD12	2.19	0.42
1:I:24:GLU:HB2	1:I:159:ASP:OD2	2.20	0.42
1:I:404:MET:HA	1:I:407:ALA:HB3	2.02	0.42
1:I:411:ALA:HA	1:J:57:PHE:HE1	1.83	0.42
1:J:411:ALA:O	1:J:415:VAL:HG22	2.19	0.42
1:K:546:THR:OG1	1:K:547:PRO:HD3	2.19	0.42
1:K:613:GLY:HA2	1:K:616:LEU:CD1	2.46	0.42
1:B:21:ALA:HB2	1:B:172:HIS:CD2	2.55	0.42
1:B:81:ARG:HB2	1:B:517:TYR:CZ	2.55	0.42
1:C:38:VAL:HG22	1:C:43:ASP:OD1	2.20	0.42
1:C:609:VAL:O	1:C:612:GLN:HB2	2.20	0.42
1:D:120:GLU:HA	1:D:320:VAL:HB	2.01	0.42
1:D:203:ASN:HD21	1:D:209:PHE:HZ	1.68	0.42
1:E:89:ASP:O	1:E:92:ASP:HB2	2.20	0.42
1:E:99:ARG:O	1:E:103:ARG:N	2.53	0.42
1:F:193:LEU:HD23	1:F:193:LEU:HA	1.88	0.42
1:F:246:TYR:HB2	1:F:511:ARG:H	1.85	0.42
1:F:78:VAL:HA	1:F:520:VAL:HA	2.01	0.42
1:H:235:TYR:HE1	1:H:264:ILE:HA	1.85	0.42
1:H:434:THR:HG21	1:I:72:ARG:HG3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:75:PRO:HD2	1:H:523:SER:HB3	2.01	0.42
1:I:622:LEU:O	1:I:626:GLN:HG3	2.20	0.42
1:L:297:HIS:CG	1:L:298:ILE:N	2.87	0.42
1:L:538:LEU:O	1:L:542:THR:OG1	2.38	0.42
1:A:21:ALA:HB2	1:A:172:HIS:CD2	2.54	0.42
1:C:307:TRP:HE1	1:C:314:GLU:HG2	1.85	0.42
1:C:649:ARG:O	1:C:653:ILE:HG13	2.20	0.42
1:D:623:ALA:O	1:D:626:GLN:HB2	2.20	0.42
1:D:628:GLN:O	1:D:632:LEU:HB2	2.19	0.42
1:E:176:ILE:HD11	1:E:204:PRO:HB3	2.01	0.42
1:E:623:ALA:O	1:E:626:GLN:HB2	2.19	0.42
1:G:642:GLN:HA	1:G:645:LEU:HD12	2.01	0.42
1:H:235:TYR:HA	1:H:265:LYS:O	2.20	0.42
1:H:447:TYR:O	1:H:450:GLN:HB3	2.20	0.42
1:I:21:ALA:HB2	1:I:172:HIS:CD2	2.54	0.42
1:J:162:SER:OG	1:J:164:LEU:O	2.38	0.42
1:K:297:HIS:CG	1:K:298:ILE:N	2.88	0.42
1:B:55:GLY:N	1:B:335:SER:OG	2.52	0.41
1:C:236:GLN:HA	1:C:245:SER:H	1.85	0.41
1:C:448:VAL:HG12	1:C:514:TYR:CE1	2.55	0.41
1:C:622:LEU:O	1:C:626:GLN:HG3	2.20	0.41
1:D:35:PHE:CZ	1:D:321:ARG:HB2	2.55	0.41
1:E:532:ARG:HH22	1:E:560:LEU:HD11	1.85	0.41
1:D:581:VAL:HG22	1:E:567:MET:HB2	2.01	0.41
1:E:660:SER:O	1:E:663:SER:OG	2.24	0.41
1:F:124:GLY:CA	1:F:303:VAL:HG22	2.49	0.41
1:F:47:GLN:HB2	1:F:50:THR:HG21	2.02	0.41
1:G:117:GLU:OE1	1:G:124:GLY:HA2	2.20	0.41
1:G:527:MET:HA	1:G:530:GLN:CD	2.40	0.41
1:G:628:GLN:O	1:G:632:LEU:HB2	2.19	0.41
1:G:641:ALA:HA	1:G:644:GLN:OE1	2.20	0.41
1:H:231:THR:HG22	1:H:249:ARG:HE	1.85	0.41
1:H:410:SER:O	1:H:413:LYS:HG2	2.20	0.41
1:J:162:SER:OG	1:J:167:LYS:HA	2.20	0.41
1:J:297:HIS:CG	1:J:298:ILE:H	2.37	0.41
1:K:532:ARG:HH22	1:K:560:LEU:HD11	1.85	0.41
1:L:31:ASN:O	1:L:35:PHE:HD2	2.02	0.41
1:A:83:LYS:HD2	1:A:515:GLU:CG	2.50	0.41
1:B:238:PRO:HB3	1:B:263:PHE:CD1	2.55	0.41
1:B:325:ASP:HA	1:B:328:ARG:NH1	2.36	0.41
1:B:695:GLU:HA	1:B:698:HIS:ND1	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:151:SER:O	1:C:155:HIS:ND1	2.44	0.41
1:C:162:SER:HB2	1:C:170:ALA:HB2	2.02	0.41
1:C:248:LYS:CD	1:C:251:ILE:HB	2.43	0.41
1:C:357:ALA:HA	1:C:360:GLU:OE2	2.20	0.41
1:C:47:GLN:HB2	1:C:50:THR:HG21	2.01	0.41
1:C:710:SER:O	1:C:714:ASN:HB2	2.20	0.41
1:D:248:LYS:HE3	1:D:252:LYS:HB2	2.02	0.41
1:D:323:THR:HG22	1:D:415:VAL:CG2	2.50	0.41
1:D:564:GLY:O	1:D:568:MET:HG2	2.19	0.41
1:D:663:SER:O	1:D:666:ARG:HG3	2.19	0.41
1:E:171:ARG:NH1	1:F:186:ASP:OD2	2.52	0.41
1:F:233:PHE:HB2	1:F:249:ARG:HB3	2.02	0.41
1:G:21:ALA:HB2	1:G:172:HIS:CD2	2.54	0.41
1:G:403:TYR:OH	1:H:397:VAL:HG11	2.21	0.41
1:H:695:GLU:HA	1:H:698:HIS:ND1	2.34	0.41
1:I:133:GLU:O	1:I:137:PRO:HB3	2.20	0.41
1:I:307:TRP:HE1	1:I:314:GLU:HG2	1.85	0.41
1:J:146:ARG:HG2	1:J:148:PRO:HD3	2.02	0.41
1:J:275:ARG:HD2	1:J:296:GLU:HG2	2.02	0.41
1:J:57:PHE:HB2	1:J:334:MET:SD	2.60	0.41
1:J:546:THR:OG1	1:J:547:PRO:HD3	2.19	0.41
1:J:564:GLY:O	1:J:568:MET:HG2	2.20	0.41
1:K:652:GLU:O	1:K:656:ASN:HB2	2.21	0.41
1:L:386:THR:HG22	1:L:387:GLN:N	2.35	0.41
1:C:120:GLU:HA	1:C:320:VAL:HB	2.02	0.41
1:C:231:THR:HG22	1:C:249:ARG:HE	1.85	0.41
1:D:444:LEU:HD23	1:D:518:THR:HB	2.01	0.41
1:E:35:PHE:H	1:E:35:PHE:HD2	1.68	0.41
1:F:623:ALA:O	1:F:626:GLN:HB2	2.21	0.41
1:G:231:THR:HG22	1:G:249:ARG:HE	1.84	0.41
1:G:29:ALA:O	1:G:33:LEU:HB2	2.20	0.41
1:H:120:GLU:HA	1:H:320:VAL:HB	2.02	0.41
1:H:411:ALA:O	1:H:415:VAL:HG22	2.21	0.41
1:I:276:VAL:HG11	1:I:297:HIS:O	2.20	0.41
1:I:546:THR:OG1	1:I:547:PRO:HD3	2.21	0.41
1:I:591:GLN:HA	1:I:595:GLU:CD	2.40	0.41
1:J:235:TYR:HE1	1:J:264:ILE:HA	1.84	0.41
1:J:355:GLN:HA	1:J:375:ASN:HB3	2.02	0.41
1:L:441:ARG:O	1:L:444:LEU:HB3	2.20	0.41
1:L:527:MET:HA	1:L:530:GLN:CD	2.41	0.41
1:B:57:PHE:HB2	1:B:334:MET:SD	2.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:72:ARG:NH2	1:C:111:VAL:HG12	2.34	0.41
1:D:45:LEU:HG	1:D:46:SER:H	1.84	0.41
1:F:83:LYS:HD2	1:F:515:GLU:CG	2.51	0.41
1:G:110:ALA:HB1	1:G:126:TRP:CE3	2.56	0.41
1:H:246:TYR:HB2	1:H:511:ARG:H	1.85	0.41
1:H:389:LEU:HD23	1:H:389:LEU:HA	1.89	0.41
1:I:297:HIS:CG	1:I:298:ILE:H	2.38	0.41
1:J:398:PRO:O	1:J:399:GLN:HG2	2.20	0.41
1:J:83:LYS:HD2	1:J:515:GLU:CG	2.50	0.41
1:J:593:LEU:O	1:J:597:GLN:HG3	2.21	0.41
1:K:509:ASP:OD2	1:K:513:ARG:NH2	2.53	0.41
1:L:641:ALA:HA	1:L:644:GLN:OE1	2.21	0.41
1:A:411:ALA:HA	1:B:57:PHE:HE1	1.84	0.41
1:A:438:LEU:O	1:A:442:ALA:N	2.42	0.41
1:B:231:THR:HG22	1:B:249:ARG:HE	1.85	0.41
1:A:646:ASN:HA	1:B:644:GLN:HG2	2.02	0.41
1:C:386:THR:HG22	1:C:387:GLN:N	2.35	0.41
1:C:623:ALA:HA	1:C:626:GLN:CD	2.41	0.41
1:C:628:GLN:O	1:C:632:LEU:HB2	2.21	0.41
1:D:386:THR:HG22	1:D:387:GLN:N	2.35	0.41
1:D:441:ARG:O	1:D:444:LEU:HB3	2.21	0.41
1:C:621:GLU:OE2	1:D:616:LEU:HA	2.20	0.41
1:E:193:LEU:HA	1:E:193:LEU:HD23	1.91	0.41
1:F:231:THR:HG22	1:F:249:ARG:HE	1.85	0.41
1:F:386:THR:HG22	1:F:387:GLN:N	2.36	0.41
1:F:509:ASP:OD2	1:F:513:ARG:NH2	2.53	0.41
1:F:546:THR:OG1	1:F:547:PRO:HD3	2.21	0.41
1:G:320:VAL:O	1:G:323:THR:OG1	2.21	0.41
1:G:663:SER:HA	1:G:666:ARG:HG2	2.01	0.41
1:H:564:GLY:O	1:H:568:MET:HG2	2.20	0.41
1:I:105:ASN:O	1:I:109:ILE:HG12	2.21	0.41
1:J:320:VAL:O	1:J:324:LYS:HG3	2.21	0.41
1:K:120:GLU:HA	1:K:320:VAL:HB	2.03	0.41
1:K:333:ILE:HG22	1:K:337:ASN:OD1	2.20	0.41
1:L:162:SER:OG	1:L:167:LYS:HA	2.20	0.41
1:L:47:GLN:HB2	1:L:50:THR:HG21	2.02	0.41
1:L:623:ALA:HA	1:L:626:GLN:CD	2.40	0.41
1:A:110:ALA:HB1	1:A:126:TRP:CE3	2.56	0.41
1:A:436:ASN:HA	1:A:439:ASN:ND2	2.34	0.41
1:B:447:TYR:O	1:B:450:GLN:HB3	2.20	0.41
1:B:541:LYS:HB3	1:B:541:LYS:HE2	1.91	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:281:ILE:HG23	1:C:286:VAL:HA	2.03	0.41
1:C:546:THR:OG1	1:C:547:PRO:HD3	2.19	0.41
1:E:106:THR:HG23	1:E:146:ARG:HE	1.86	0.41
1:E:232:ALA:HA	1:E:269:ARG:H	1.86	0.41
1:F:151:SER:HB3	1:F:154:SER:OG	2.20	0.41
1:G:38:VAL:HG22	1:G:43:ASP:OD1	2.20	0.41
1:G:526:SER:O	1:G:530:GLN:N	2.49	0.41
1:H:276:VAL:HG23	1:H:293:ILE:HD13	2.02	0.41
1:I:126:TRP:CD1	1:I:146:ARG:HG3	2.56	0.41
1:I:70:GLU:OE1	1:I:429:GLN:HG3	2.21	0.41
1:J:47:GLN:HB2	1:J:50:THR:CG2	2.50	0.41
1:J:622:LEU:O	1:J:626:GLN:HG3	2.21	0.41
1:K:117:GLU:OE1	1:K:124:GLY:HA2	2.20	0.41
1:K:232:ALA:HA	1:K:269:ARG:H	1.85	0.41
1:K:231:THR:HG22	1:K:249:ARG:HE	1.86	0.41
1:K:389:LEU:HD23	1:K:389:LEU:HA	1.90	0.41
1:L:26:ARG:O	1:L:30:LYS:HG3	2.21	0.41
1:L:77:ASP:HB2	1:L:523:SER:HA	2.03	0.41
1:A:329:LEU:O	1:A:333:ILE:HG13	2.21	0.41
1:A:350:PHE:CE1	1:B:372:TYR:HB3	2.56	0.41
1:B:546:THR:OG1	1:B:547:PRO:HD3	2.21	0.41
1:D:281:ILE:HG23	1:D:286:VAL:HA	2.02	0.41
1:D:296:GLU:HB2	1:D:449:PHE:CD2	2.39	0.41
1:F:514:TYR:HB2	1:G:136:SER:OG	2.20	0.41
1:G:386:THR:HG22	1:G:387:GLN:N	2.35	0.41
1:I:231:THR:HG22	1:I:249:ARG:HE	1.85	0.41
1:I:238:PRO:HB3	1:I:263:PHE:CE1	2.56	0.41
1:L:193:LEU:HD21	1:L:288:LYS:HZ3	1.86	0.41
1:K:353:PRO:HD3	1:L:374:LEU:O	2.21	0.41
1:L:83:LYS:HD2	1:L:515:GLU:CG	2.50	0.41
1:L:623:ALA:O	1:L:626:GLN:HB2	2.21	0.41
1:L:652:GLU:O	1:L:656:ASN:HB2	2.20	0.41
1:B:275:ARG:HD2	1:B:296:GLU:HG2	2.03	0.41
1:B:31:ASN:O	1:B:35:PHE:HD2	2.03	0.41
1:B:359:PHE:HB3	1:B:363:TYR:HE2	1.85	0.41
1:A:398:PRO:HB3	1:B:394:ASN:HB3	2.03	0.41
1:C:72:ARG:HH21	1:C:111:VAL:HG12	1.86	0.41
1:E:151:SER:HB2	1:E:155:HIS:CE1	2.55	0.41
1:E:710:SER:O	1:E:714:ASN:HB2	2.21	0.41
1:F:458:ARG:NH2	1:F:500:ALA:HB1	2.36	0.41
1:F:663:SER:HA	1:F:666:ARG:HG2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:546:THR:OG1	1:H:547:PRO:HD3	2.20	0.41
1:I:110:ALA:HB1	1:I:126:TRP:CE3	2.55	0.41
1:I:38:VAL:HG22	1:I:43:ASP:OD1	2.21	0.41
1:J:238:PRO:HB3	1:J:263:PHE:CE1	2.56	0.41
1:J:646:ASN:HA	1:K:644:GLN:HG2	2.03	0.41
1:K:26:ARG:O	1:K:30:LYS:HG3	2.21	0.41
1:K:436:ASN:HA	1:K:439:ASN:ND2	2.35	0.41
1:J:667:GLU:HG2	1:K:666:ARG:CZ	2.51	0.41
1:L:509:ASP:OD1	1:L:509:ASP:N	2.54	0.41
1:L:538:LEU:HB3	1:L:551:LEU:HD11	2.03	0.41
1:A:276:VAL:HG11	1:A:297:HIS:O	2.20	0.41
1:A:386:THR:HG22	1:A:387:GLN:N	2.35	0.41
1:A:623:ALA:O	1:A:626:GLN:HB2	2.20	0.41
1:B:614:VAL:HG11	1:C:609:VAL:HG11	2.03	0.41
1:C:297:HIS:CG	1:C:298:ILE:H	2.38	0.41
1:C:538:LEU:O	1:C:542:THR:OG1	2.38	0.41
1:C:57:PHE:HB2	1:C:334:MET:SD	2.61	0.41
1:E:225:VAL:HA	1:E:276:VAL:HG12	2.02	0.41
1:E:278:LYS:HB3	1:E:291:GLN:O	2.21	0.41
1:E:42:ASP:HB3	1:E:44:TRP:HD1	1.86	0.41
1:E:47:GLN:HB2	1:E:50:THR:CG2	2.51	0.41
1:G:220:ALA:CB	1:G:281:ILE:O	2.48	0.41
1:G:662:GLN:HA	1:G:665:PHE:CD2	2.55	0.41
1:H:127:ARG:HB3	1:H:147:GLU:HB2	2.02	0.41
1:H:203:ASN:HD21	1:H:209:PHE:HZ	1.69	0.41
1:H:306:GLU:OE2	1:I:61:ARG:NE	2.54	0.41
1:H:57:PHE:HB2	1:H:334:MET:SD	2.61	0.41
1:H:363:TYR:CE1	1:H:372:TYR:HA	2.53	0.41
1:H:593:LEU:O	1:H:597:GLN:HG3	2.21	0.41
1:I:236:GLN:HG2	1:I:244:VAL:H	1.86	0.41
1:I:359:PHE:HB3	1:I:363:TYR:HE2	1.86	0.41
1:I:649:ARG:O	1:I:653:ILE:HG13	2.20	0.41
1:K:238:PRO:HB3	1:K:263:PHE:CD1	2.56	0.41
1:K:663:SER:HA	1:K:666:ARG:NE	2.28	0.41
1:L:248:LYS:HG2	1:L:511:ARG:HH21	1.85	0.41
1:L:622:LEU:O	1:L:626:GLN:HG3	2.21	0.41
1:B:117:GLU:OE1	1:B:124:GLY:HA2	2.21	0.41
1:F:162:SER:OG	1:F:167:LYS:HA	2.20	0.41
1:F:448:VAL:HA	1:F:451:ASP:OD2	2.21	0.41
1:F:89:ASP:O	1:F:92:ASP:HB2	2.21	0.41
1:G:325:ASP:HA	1:G:328:ARG:NH1	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:458:ARG:NH2	1:G:500:ALA:HB1	2.36	0.41
1:I:162:SER:OG	1:I:167:LYS:HA	2.20	0.41
1:I:225:VAL:HG22	1:I:276:VAL:HG12	2.03	0.41
1:I:410:SER:O	1:I:413:LYS:HG2	2.20	0.41
1:I:458:ARG:NH2	1:I:500:ALA:HB1	2.35	0.41
1:I:562:GLY:O	1:I:566:GLU:HG3	2.21	0.41
1:I:615:LEU:O	1:I:618:GLY:N	2.54	0.41
1:J:42:ASP:HB3	1:J:44:TRP:HD1	1.85	0.41
1:K:235:TYR:HA	1:K:265:LYS:O	2.21	0.41
1:K:359:PHE:HB2	1:K:360:GLU:H	1.78	0.41
1:K:407:ALA:HA	1:K:410:SER:HB2	2.03	0.41
1:L:10:SER:O	1:L:14:ARG:HG2	2.21	0.41
1:L:282:THR:HG23	1:L:284:THR:H	1.85	0.41
1:A:184:TRP:CZ3	1:A:199:PRO:HG3	2.56	0.41
1:A:458:ARG:NH2	1:A:500:ALA:HB1	2.36	0.41
1:A:47:GLN:HB2	1:A:50:THR:HG21	2.03	0.41
1:B:398:PRO:O	1:B:399:GLN:HG2	2.20	0.41
1:B:87:ARG:HD3	1:B:89:ASP:HB2	2.02	0.41
1:C:282:THR:HG23	1:C:284:THR:H	1.86	0.41
1:C:562:GLY:O	1:C:566:GLU:HG3	2.20	0.41
1:C:83:LYS:HD2	1:C:515:GLU:CG	2.51	0.41
1:D:282:THR:HG23	1:D:284:THR:H	1.86	0.41
1:D:448:VAL:HA	1:D:451:ASP:OD2	2.21	0.41
1:D:526:SER:O	1:D:530:GLN:N	2.47	0.41
1:D:663:SER:HA	1:D:666:ARG:NE	2.27	0.41
1:F:460:ASP:HA	1:F:499:LEU:O	2.21	0.41
1:F:574:LYS:O	1:F:578:GLN:HG3	2.21	0.41
1:G:165:MET:HB3	1:G:304:PHE:CG	2.56	0.41
1:G:236:GLN:HG2	1:G:244:VAL:H	1.86	0.41
1:H:297:HIS:CG	1:H:298:ILE:H	2.38	0.41
1:H:72:ARG:HH21	1:H:111:VAL:HG12	1.86	0.41
1:H:403:TYR:OH	1:I:397:VAL:HG11	2.20	0.41
1:I:527:MET:HA	1:I:530:GLN:CD	2.41	0.41
1:J:21:ALA:HB2	1:J:172:HIS:CD2	2.56	0.41
1:J:386:THR:HG22	1:J:387:GLN:N	2.35	0.41
1:L:438:LEU:O	1:L:442:ALA:N	2.42	0.41
1:A:114:ALA:O	1:A:118:GLN:HB2	2.20	0.40
1:A:233:PHE:HB2	1:A:249:ARG:HB3	2.03	0.40
1:C:176:ILE:HG21	1:C:201:PHE:CE2	2.56	0.40
1:C:35:PHE:H	1:C:35:PHE:HD2	1.68	0.40
1:D:26:ARG:O	1:D:30:LYS:HG3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:398:PRO:O	1:D:399:GLN:HG2	2.20	0.40
1:E:252:LYS:NZ	1:E:256:ASP:HB3	2.36	0.40
1:E:83:LYS:HD2	1:E:515:GLU:CG	2.52	0.40
1:F:556:TYR:HB3	1:F:572:ALA:CB	2.48	0.40
1:F:593:LEU:O	1:F:597:GLN:HG3	2.20	0.40
1:G:252:LYS:HD2	1:G:256:ASP:HB3	2.04	0.40
1:G:26:ARG:O	1:G:30:LYS:HG3	2.20	0.40
1:G:89:ASP:O	1:G:92:ASP:HB2	2.21	0.40
1:H:236:GLN:HG2	1:H:244:VAL:H	1.85	0.40
1:H:559:LEU:HB3	1:H:565:VAL:HB	2.04	0.40
1:J:662:GLN:HA	1:J:665:PHE:CD2	2.56	0.40
1:K:362:MET:HA	1:K:366:ASN:CB	2.50	0.40
1:K:83:LYS:HD2	1:K:515:GLU:CG	2.52	0.40
1:K:685:ALA:O	1:K:689:LEU:HG	2.21	0.40
1:L:248:LYS:CD	1:L:251:ILE:HB	2.45	0.40
1:L:259:ALA:HA	1:L:263:PHE:CD2	2.56	0.40
1:L:398:PRO:O	1:L:399:GLN:HG2	2.21	0.40
1:L:47:GLN:HB2	1:L:50:THR:CG2	2.51	0.40
1:A:183:GLY:HA3	1:L:161:ASN:ND2	2.33	0.40
1:A:35:PHE:HD2	1:A:35:PHE:H	1.69	0.40
1:A:644:GLN:HG2	1:L:646:ASN:HA	2.03	0.40
1:B:297:HIS:CG	1:B:298:ILE:H	2.38	0.40
1:B:363:TYR:CE1	1:B:372:TYR:HA	2.55	0.40
1:B:562:GLY:O	1:B:566:GLU:HG3	2.21	0.40
1:D:297:HIS:CG	1:D:298:ILE:N	2.90	0.40
1:D:35:PHE:HD2	1:D:35:PHE:H	1.68	0.40
1:D:323:THR:HG22	1:D:415:VAL:HG23	2.02	0.40
1:E:114:ALA:O	1:E:118:GLN:HB2	2.22	0.40
1:E:31:ASN:O	1:E:35:PHE:CD2	2.75	0.40
1:E:509:ASP:OD1	1:E:509:ASP:N	2.54	0.40
1:E:527:MET:HA	1:E:530:GLN:CD	2.41	0.40
1:F:117:GLU:OE1	1:F:124:GLY:HA2	2.21	0.40
1:F:10:SER:O	1:F:14:ARG:HG2	2.21	0.40
1:E:353:PRO:HD3	1:F:374:LEU:O	2.20	0.40
1:F:411:ALA:HA	1:G:57:PHE:HE1	1.86	0.40
1:G:105:ASN:O	1:G:109:ILE:HG12	2.20	0.40
1:G:276:VAL:HG11	1:G:297:HIS:O	2.21	0.40
1:G:581:VAL:HG22	1:H:567:MET:HB2	2.02	0.40
1:H:10:SER:O	1:H:14:ARG:HG2	2.21	0.40
1:H:573:ASN:HA	1:H:576:LEU:HD12	2.03	0.40
1:I:623:ALA:HA	1:I:626:GLN:CD	2.41	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:623:ALA:O	1:J:626:GLN:HB2	2.21	0.40
1:K:152:ALA:HA	1:K:155:HIS:HB2	2.04	0.40
1:K:411:ALA:O	1:K:415:VAL:HG22	2.21	0.40
1:L:117:GLU:OE1	1:L:124:GLY:HA2	2.22	0.40
1:A:116:ARG:NH2	1:L:306:GLU:HG3	2.36	0.40
1:L:609:VAL:O	1:L:612:GLN:HB2	2.20	0.40
1:A:398:PRO:CB	1:B:394:ASN:HB3	2.52	0.40
1:A:404:MET:HA	1:A:407:ALA:HB3	2.03	0.40
1:B:101:ASP:N	1:B:101:ASP:OD1	2.55	0.40
1:B:89:ASP:O	1:B:92:ASP:HB2	2.20	0.40
1:C:363:TYR:CE1	1:C:372:TYR:HA	2.56	0.40
1:D:133:GLU:O	1:D:137:PRO:HB3	2.21	0.40
1:D:15:PHE:HA	1:D:18:ASP:HB3	2.03	0.40
1:D:21:ALA:HB2	1:D:172:HIS:NE2	2.36	0.40
1:D:320:VAL:O	1:D:323:THR:OG1	2.19	0.40
1:E:83:LYS:HD2	1:E:515:GLU:HG3	2.03	0.40
1:G:562:GLY:O	1:G:566:GLU:HG3	2.21	0.40
1:H:176:ILE:HG21	1:H:201:PHE:CE2	2.56	0.40
1:I:64:VAL:HG22	1:I:119:ILE:HG21	2.04	0.40
1:L:278:LYS:HB3	1:L:291:GLN:O	2.21	0.40
1:A:546:THR:OG1	1:A:547:PRO:HD3	2.20	0.40
1:B:151:SER:O	1:B:155:HIS:ND1	2.43	0.40
1:B:526:SER:O	1:B:530:GLN:N	2.52	0.40
1:C:137:PRO:HG3	1:C:141:ASN:OD1	2.21	0.40
1:D:400:ALA:O	1:D:404:MET:HB2	2.22	0.40
1:F:609:VAL:O	1:F:612:GLN:HB2	2.22	0.40
1:F:657:MET:SD	1:G:655:ASN:ND2	2.94	0.40
1:G:374:LEU:HA	1:G:374:LEU:HD13	1.97	0.40
1:G:65:ARG:O	1:G:69:SER:HB2	2.22	0.40
1:G:161:ASN:ND2	1:H:183:GLY:HA3	2.37	0.40
1:H:47:GLN:HB2	1:H:50:THR:HG21	2.03	0.40
1:I:398:PRO:O	1:I:399:GLN:HG2	2.21	0.40
1:I:623:ALA:O	1:I:626:GLN:HB2	2.22	0.40
1:J:573:ASN:HA	1:J:576:LEU:HD12	2.03	0.40
1:K:657:MET:SD	1:L:655:ASN:ND2	2.94	0.40
1:L:248:LYS:CG	1:L:511:ARG:HH21	2.35	0.40
1:L:448:VAL:HA	1:L:451:ASP:OD2	2.21	0.40
1:A:527:MET:HA	1:A:530:GLN:CD	2.42	0.40
1:B:248:LYS:HE3	1:B:252:LYS:HB2	2.02	0.40
1:D:621:GLU:OE2	1:E:616:LEU:HB3	2.21	0.40
1:D:685:ALA:O	1:D:689:LEU:HG	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:42:ASP:HB3	1:F:44:TRP:HD1	1.87	0.40
1:G:297:HIS:CG	1:G:298:ILE:H	2.40	0.40
1:G:407:ALA:HA	1:G:410:SER:HB2	2.04	0.40
1:G:538:LEU:HB3	1:G:551:LEU:HD11	2.03	0.40
1:H:238:PRO:HB3	1:H:263:PHE:CE1	2.57	0.40
1:H:407:ALA:HA	1:H:410:SER:HB2	2.04	0.40
1:H:72:ARG:HH22	1:H:112:ASN:HA	1.85	0.40
1:H:78:VAL:HA	1:H:520:VAL:HA	2.04	0.40
1:K:236:GLN:OE1	1:K:265:LYS:HD3	2.22	0.40
1:K:441:ARG:O	1:K:444:LEU:HB3	2.22	0.40
1:K:663:SER:HA	1:K:666:ARG:HG2	2.04	0.40
1:K:87:ARG:HD3	1:K:89:ASP:HB2	2.02	0.40
1:L:626:GLN:O	1:L:630:LEU:HB2	2.21	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	669/725 (92%)	562 (84%)	102 (15%)	5 (1%)	25	68
1	B	669/725 (92%)	561 (84%)	103 (15%)	5 (1%)	25	68
1	C	669/725 (92%)	560 (84%)	104 (16%)	5 (1%)	25	68
1	D	669/725 (92%)	561 (84%)	103 (15%)	5 (1%)	25	68
1	E	669/725 (92%)	562 (84%)	101 (15%)	6 (1%)	20	63
1	F	669/725 (92%)	561 (84%)	103 (15%)	5 (1%)	25	68
1	G	669/725 (92%)	563 (84%)	100 (15%)	6 (1%)	20	63
1	H	669/725 (92%)	561 (84%)	103 (15%)	5 (1%)	25	68
1	I	669/725 (92%)	560 (84%)	105 (16%)	4 (1%)	28	71
1	J	669/725 (92%)	559 (84%)	106 (16%)	4 (1%)	28	71

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	K	669/725 (92%)	560 (84%)	104 (16%)	5 (1%)	25	68
1	L	669/725 (92%)	562 (84%)	101 (15%)	6 (1%)	20	63
All	All	8028/8700 (92%)	6732 (84%)	1235 (15%)	61 (1%)	22	67

All (61) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	58	ASP
1	B	58	ASP
1	C	58	ASP
1	D	58	ASP
1	E	58	ASP
1	F	58	ASP
1	G	58	ASP
1	H	58	ASP
1	I	58	ASP
1	J	58	ASP
1	K	58	ASP
1	L	58	ASP
1	A	587	PRO
1	C	587	PRO
1	D	587	PRO
1	H	587	PRO
1	I	587	PRO
1	B	587	PRO
1	E	587	PRO
1	F	587	PRO
1	G	587	PRO
1	J	587	PRO
1	K	587	PRO
1	L	587	PRO
1	A	203	ASN
1	B	203	ASN
1	C	203	ASN
1	D	203	ASN
1	E	31	ASN
1	E	203	ASN
1	F	203	ASN
1	G	120	GLU
1	G	203	ASN
1	H	203	ASN

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Mol	Chain	Res	Type
1	I	203	ASN
1	J	203	ASN
1	K	31	ASN
1	K	203	ASN
1	L	31	ASN
1	L	203	ASN
1	A	76	ILE
1	B	76	ILE
1	C	76	ILE
1	D	76	ILE
1	E	76	ILE
1	F	76	ILE
1	G	76	ILE
1	H	76	ILE
1	I	76	ILE
1	J	76	ILE
1	K	76	ILE
1	L	76	ILE
1	B	653	ILE
1	C	653	ILE
1	E	653	ILE
1	F	653	ILE
1	H	653	ILE
1	L	653	ILE
1	A	653	ILE
1	D	653	ILE
1	G	653	ILE

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	572/630 (91%)	567 (99%)	5 (1%)	82	91
1	B	572/630 (91%)	566 (99%)	6 (1%)	80	90
1	C	572/630 (91%)	566 (99%)	6 (1%)	80	90

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	D	572/630 (91%)	568 (99%)	4 (1%)	87	93
1	E	572/630 (91%)	565 (99%)	7 (1%)	75	88
1	F	572/630 (91%)	565 (99%)	7 (1%)	75	88
1	G	572/630 (91%)	566 (99%)	6 (1%)	80	90
1	H	572/630 (91%)	568 (99%)	4 (1%)	87	93
1	I	572/630 (91%)	567 (99%)	5 (1%)	82	91
1	J	572/630 (91%)	567 (99%)	5 (1%)	82	91
1	K	572/630 (91%)	566 (99%)	6 (1%)	80	90
1	L	572/630 (91%)	567 (99%)	5 (1%)	82	91
All	All	6864/7560 (91%)	6798 (99%)	66 (1%)	80	90

All (66) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	164	LEU
1	A	277	TYR
1	A	403	TYR
1	A	615	LEU
1	A	616	LEU
1	B	142	GLN
1	B	164	LEU
1	B	277	TYR
1	B	403	TYR
1	B	615	LEU
1	B	616	LEU
1	C	142	GLN
1	C	164	LEU
1	C	277	TYR
1	C	403	TYR
1	C	615	LEU
1	C	616	LEU
1	D	164	LEU
1	D	277	TYR
1	D	403	TYR
1	D	616	LEU
1	E	142	GLN
1	E	164	LEU
1	E	277	TYR
1	E	403	TYR

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Mol	Chain	Res	Type
1	E	615	LEU
1	E	616	LEU
1	E	642	GLN
1	F	142	GLN
1	F	164	LEU
1	F	277	TYR
1	F	403	TYR
1	F	615	LEU
1	F	616	LEU
1	F	642	GLN
1	G	142	GLN
1	G	164	LEU
1	G	277	TYR
1	G	403	TYR
1	G	615	LEU
1	G	616	LEU
1	H	164	LEU
1	H	403	TYR
1	H	615	LEU
1	H	616	LEU
1	I	164	LEU
1	I	277	TYR
1	I	403	TYR
1	I	615	LEU
1	I	616	LEU
1	J	164	LEU
1	J	277	TYR
1	J	403	TYR
1	J	615	LEU
1	J	616	LEU
1	K	142	GLN
1	K	164	LEU
1	K	277	TYR
1	K	403	TYR
1	K	615	LEU
1	K	616	LEU
1	L	164	LEU
1	L	277	TYR
1	L	403	TYR
1	L	615	LEU
1	L	616	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (72) such

sidechains are listed below:

Mol	Chain	Res	Type
1	A	142	GLN
1	A	161	ASN
1	A	439	ASN
1	A	550	GLN
1	A	597	GLN
1	B	142	GLN
1	B	161	ASN
1	B	439	ASN
1	B	450	GLN
1	B	550	GLN
1	B	597	GLN
1	C	142	GLN
1	C	161	ASN
1	C	439	ASN
1	C	450	GLN
1	C	550	GLN
1	C	597	GLN
1	C	643	ASN
1	D	142	GLN
1	D	161	ASN
1	D	439	ASN
1	D	450	GLN
1	D	550	GLN
1	D	597	GLN
1	D	643	ASN
1	E	161	ASN
1	E	439	ASN
1	E	550	GLN
1	E	597	GLN
1	F	142	GLN
1	F	161	ASN
1	F	439	ASN
1	F	550	GLN
1	F	597	GLN
1	G	142	GLN
1	G	161	ASN
1	G	337	ASN
1	G	439	ASN
1	G	550	GLN
1	G	597	GLN
1	H	142	GLN
1	H	161	ASN

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Mol	Chain	Res	Type
1	H	439	ASN
1	H	450	GLN
1	H	550	GLN
1	H	597	GLN
1	I	142	GLN
1	I	161	ASN
1	I	450	GLN
1	I	550	GLN
1	I	597	GLN
1	I	643	ASN
1	I	696	GLN
1	J	142	GLN
1	J	161	ASN
1	J	439	ASN
1	J	450	GLN
1	J	550	GLN
1	J	597	GLN
1	J	643	ASN
1	K	142	GLN
1	K	161	ASN
1	K	337	ASN
1	K	439	ASN
1	K	450	GLN
1	K	550	GLN
1	K	597	GLN
1	L	142	GLN
1	L	161	ASN
1	L	450	GLN
1	L	550	GLN
1	L	597	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [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	673/725 (92%)	-0.71	1 (0%) 95 95	46, 96, 204, 282	0
1	B	673/725 (92%)	-0.69	0 100 100	31, 97, 169, 284	0
1	C	673/725 (92%)	-0.71	0 100 100	47, 81, 181, 288	0
1	D	673/725 (92%)	-0.68	0 100 100	51, 97, 160, 240	0
1	E	673/725 (92%)	-0.68	0 100 100	54, 100, 176, 292	0
1	F	673/725 (92%)	-0.68	0 100 100	73, 110, 184, 317	0
1	G	673/725 (92%)	-0.62	3 (0%) 92 89	71, 117, 190, 362	0
1	H	673/725 (92%)	-0.66	1 (0%) 95 95	77, 127, 205, 345	0
1	I	673/725 (92%)	-0.64	0 100 100	90, 134, 222, 333	0
1	J	673/725 (92%)	-0.62	3 (0%) 92 89	70, 139, 211, 312	0
1	K	673/725 (92%)	-0.67	1 (0%) 95 95	65, 113, 182, 250	0
1	L	673/725 (92%)	-0.70	0 100 100	63, 106, 203, 303	0
All	All	8076/8700 (92%)	-0.67	9 (0%) 95 95	31, 112, 196, 362	0

All (9) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	G	714	ASN	4.1
1	G	715	GLN	3.8
1	G	712	ARG	2.7
1	J	50	THR	2.4
1	J	715	GLN	2.4
1	H	715	GLN	2.3
1	A	386	THR	2.3
1	J	713	GLN	2.2
1	K	386	THR	2.1

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.