



Full wwPDB X-ray Structure Validation Report ⓘ

Jun 12, 2024 – 10:45 PM EDT

PDB ID : 3MKT
Title : Structure of a Cation-bound Multidrug and Toxin Compound Extrusion (MATE) transporter
Authors : He, X.; Szewczyk, P.; Karyakin, A.; Evin, M.; Hong, W.-X.; Zhang, Q.; Chang, G.
Deposited on : 2010-04-15
Resolution : 3.65 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity : 4.02b-467
Xtriage (Phenix) : 1.20.1
EDS : 2.36.2
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36.2

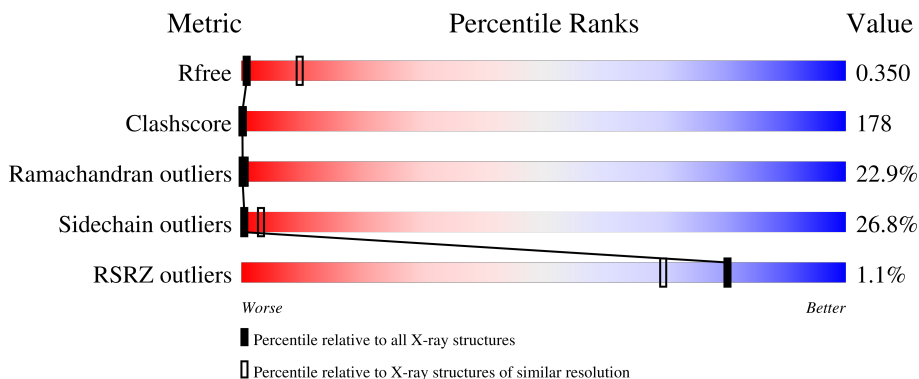
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.65 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1557 (3.82-3.50)
Clashscore	141614	1037 (3.80-3.52)
Ramachandran outliers	138981	1004 (3.80-3.52)
Sidechain outliers	138945	1002 (3.80-3.52)
RSRZ outliers	127900	1441 (3.82-3.50)

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

Mol	Chain	Length	Quality of chain
1	A	460	
1	B	460	

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 7011 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.

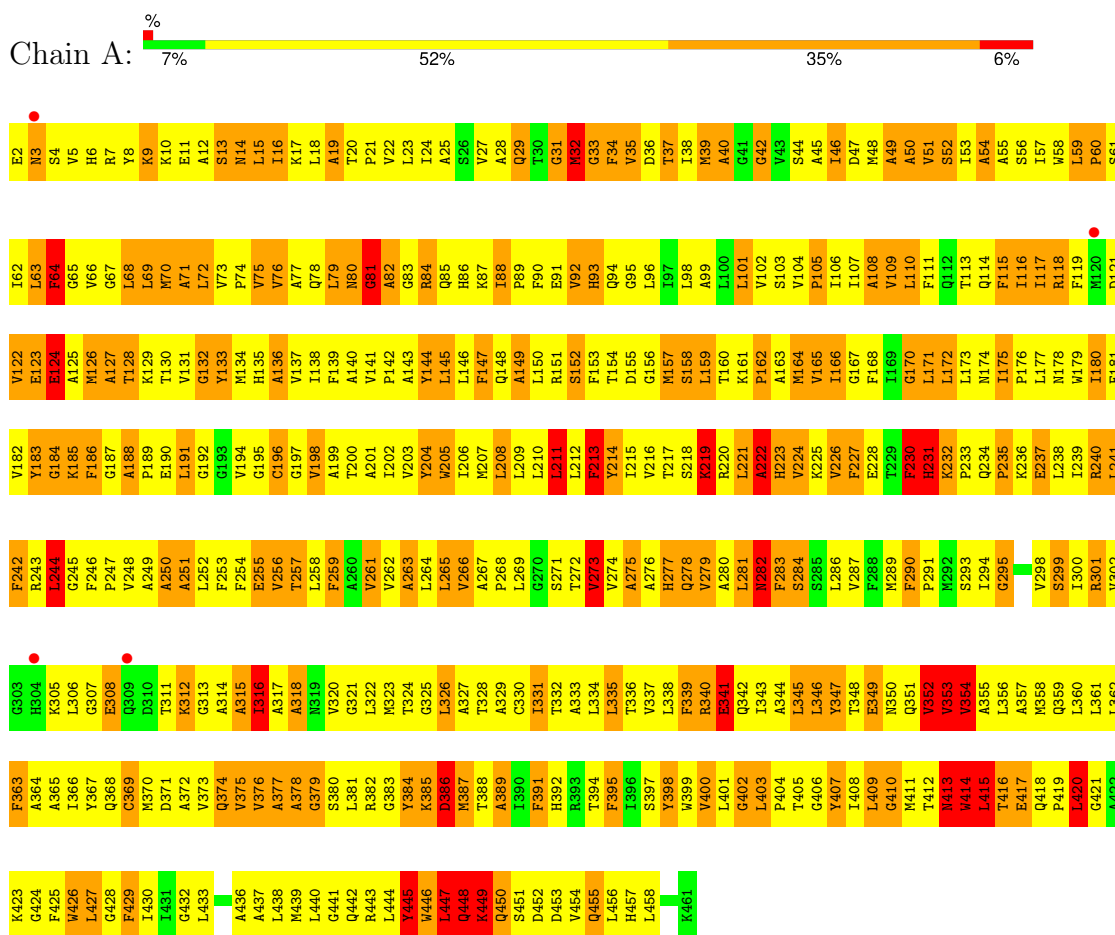
- Molecule 1 is a protein called Multi antimicrobial extrusion protein (Na(+))/drug antiporter) MATE-like MDR efflux pump.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	460	Total 3505	2326	569	589	21	0	0	0
1	B	460	Total 3506	2326	569	590	21	0	0	0

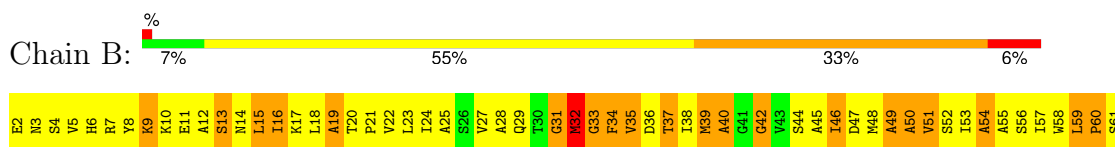
3 Residue-property plots

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

- Molecule 1: Multi antimicrobial extrusion protein (Na⁺)/drug antiporter) MATE-like MDR efflux pump



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K423	F363	V302	F242	V182	V122	I62
G424	A364	K305	R243	Y183	E123	L63
F425	A365	L306	L244	G184	E124	F64
W426	I366	G307	G245	K185	A125	G65
L427	Q367	E308	F246	F186	M126	V66
G428	Q368	Q309	P247	G187	A127	G67
F429	C369	D310	V248	A188	T128	L68
I430	M370	D311	A249	P189	L129	L69
L431	D371	T311	A250	E190	T130	M70
G432	A372	K312	A251	L191	V131	A71
L433	V373	G313	L252	G192	G132	L72
A436	Q374	A314	F253	G193	Y133	V73
A437	V375	A315	F254	V194	M134	P74
M438	V376	I316	E255	G195	H135	V75
M439	A377	A317	V256	C196	A136	V76
L440	A378	A318	T257	C197	V137	A77
G441	G379	N319	L258	V198	I138	Q78
Q442	S380	V320	F259	A199	F139	L79
R443	L381	G321	A260	T200	A140	M80
L444	R382	L322	V261	A201	V141	G81
Y445	G383	M323	V262	I202	P142	A82
W446	K384	T324	A263	Y203	A143	G83
L447	K385	G325	L264	Y204	Y144	R84
Q448	D386	L326	L265	W205	L145	Q85
K449	M387	A327	V266	W206	L146	H86
Q450	T388	T328	A267	W207	F147	K87
S451	A389	A329	P268	L208	Q148	H88
D452	I390	C330	L269	L209	A149	P89
D453	F391	L331	G270	L210	L150	F90
V454	H392	T332	S271	L211	R151	E91
Q455	R393	A333	T272	L212	S152	V92
L456	T394	L334	V273	F213	F153	H93
H457	F395	L335	V274	T214	T154	Q94
L458	I396	T336	A275	T215	D155	G95
A459	S397	V337	A276	W216	G156	L96
A460	Y398	L338	H277	T217	M157	I97
K461	W399	F339	Q278	S218	S158	L98
	V400	R340	V279	K219	L159	A99
	L401	E341	A280	R220	T160	L100
	G402	L281	L281	L221	K161	L101
	L403	I342	V282	A222	P162	V102
	P404	A343	F283	H223	A163	S103
	T405	L344	S284	W224	M164	V104
	G406	L345	S285	K225	V165	P105
	Y407	Y347	L286	V226	L166	I106
	L408	T348	V287	V227	G167	I107
	L409	E349	F288	E228	F168	A108
	G410	N350	W289	T229	F169	V109
	M411	Q351	P290	F230	G170	L110
	T412	V352	P291	H231	L171	F111
	M413	V353	K292	K232	L172	Q112
	W414	V354	S293	P233	L173	T113
	L415	A355	L294	Q234	M174	Q114
	T416	L356	G295	P235	I175	F115
	E417	A357	A296	K236	P176	I116
	Q418	M358	A297	E237	L177	I117
	P419	Q359	V298	L238	M178	A118
	L420	L360	S299	L239	W179	F119
	G421	L361	I300	R240	I180	M120
	A422	L362	R301	L241	F181	D121

4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 2	Depositor
Cell constants a, b, c, α , β , γ	140.84Å 238.77Å 45.31Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	19.77 – 3.65 19.76 – 3.65	Depositor EDS
% Data completeness (in resolution range)	86.5 (19.77-3.65) 86.6 (19.76-3.65)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.53 (at 3.61Å)	Xtrriage
Refinement program	CNS	Depositor
R, R_{free}	0.312 , 0.343 0.312 , 0.350	Depositor DCC
R_{free} test set	794 reflections (5.17%)	wwPDB-VP
Wilson B-factor (Å ²)	111.1	Xtrriage
Anisotropy	0.861	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.22 , 85.5	EDS
L-test for twinning ²	$\langle L \rangle = 0.40$, $\langle L^2 \rangle = 0.23$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.90	EDS
Total number of atoms	7011	wwPDB-VP
Average B, all atoms (Å ²)	133.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.81% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality i

5.1 Standard geometry i

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.66	1/3585 (0.0%)	1.01	20/4879 (0.4%)
1	B	0.65	0/3586	0.94	13/4879 (0.3%)
All	All	0.65	1/7171 (0.0%)	0.98	33/9758 (0.3%)

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	205	TRP	CB-CG	5.24	1.59	1.50

All (33) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	446	TRP	CB-CA-C	-10.02	90.37	110.40
1	A	449	LYS	N-CA-CB	-9.07	94.27	110.60
1	A	352	VAL	CB-CA-C	8.71	127.94	111.40
1	A	353	VAL	N-CA-CB	-8.27	93.31	111.50
1	A	223	HIS	N-CA-C	-8.17	88.94	111.00
1	B	410	GLY	N-CA-C	-8.13	92.78	113.10
1	B	446	TRP	N-CA-C	-8.01	89.37	111.00
1	A	448	GLN	N-CA-C	-7.93	89.59	111.00
1	A	410	GLY	N-CA-C	-7.79	93.62	113.10
1	A	445	TYR	CB-CA-C	-7.62	95.17	110.40
1	A	447	LEU	N-CA-CB	7.33	125.07	110.40
1	B	223	HIS	N-CA-C	-7.18	91.60	111.00
1	A	75	VAL	N-CA-C	-6.97	92.17	111.00
1	B	136	ALA	N-CA-C	-6.65	93.04	111.00
1	A	136	ALA	N-CA-C	-6.39	93.73	111.00
1	B	75	VAL	N-CA-C	-6.33	93.92	111.00
1	B	449	LYS	N-CA-CB	-6.21	99.43	110.60
1	B	222	ALA	N-CA-C	-6.20	94.27	111.00
1	A	420	LEU	N-CA-C	-6.16	94.37	111.00
1	B	81	GLY	N-CA-C	-5.97	98.18	113.10
1	A	420	LEU	CB-CA-C	5.94	121.48	110.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	447	LEU	N-CA-C	-5.92	95.02	111.00
1	A	81	GLY	N-CA-C	-5.91	98.32	113.10
1	A	222	ALA	N-CA-C	-5.84	95.24	111.00
1	A	205	TRP	N-CA-C	-5.82	95.28	111.00
1	A	124	GLU	N-CA-C	5.81	126.68	111.00
1	B	240	ARG	N-CA-C	-5.75	95.47	111.00
1	B	420	LEU	N-CA-C	-5.61	95.85	111.00
1	A	240	ARG	N-CA-C	-5.47	96.23	111.00
1	A	413	ASN	N-CA-C	-5.37	96.51	111.00
1	B	413	ASN	N-CA-C	-5.30	96.69	111.00
1	B	205	TRP	N-CA-C	-5.28	96.73	111.00
1	B	211	LEU	CA-CB-CG	5.23	127.32	115.30

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3505	0	3677	1279	0
1	B	3506	0	3677	1285	0
All	All	7011	0	7354	2562	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 178.

All (2562) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:124:GLU:O	1:A:128:THR:HB	1.34	1.24
1:B:410:GLY:HA3	1:B:425:PHE:HB3	1.27	1.17
1:A:275:ALA:HA	1:A:353:VAL:HG11	1.30	1.14
1:A:410:GLY:HA3	1:A:425:PHE:HB3	1.26	1.13
1:A:165:VAL:HG13	1:A:166:ILE:N	1.63	1.13
1:B:165:VAL:HG13	1:B:166:ILE:N	1.61	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:408:ILE:HA	1:B:411:MET:HB2	1.15	1.12
1:A:182:VAL:HG22	1:A:195:GLY:HA3	1.30	1.12
1:B:165:VAL:CG1	1:B:166:ILE:H	1.61	1.12
1:B:182:VAL:HG22	1:B:195:GLY:HA3	1.29	1.12
1:A:165:VAL:CG1	1:A:166:ILE:H	1.62	1.11
1:A:124:GLU:O	1:A:128:THR:CB	1.98	1.10
1:B:4:SER:HA	1:B:7:ARG:HB2	1.33	1.10
1:B:385:LYS:HG2	1:B:456:LEU:HB3	1.31	1.10
1:A:45:ALA:HB3	1:A:49:ALA:HB2	1.19	1.09
1:A:155:ASP:HB2	1:A:159:LEU:H	0.93	1.09
1:A:385:LYS:HG2	1:A:456:LEU:HB3	1.33	1.09
1:A:408:ILE:HA	1:A:411:MET:HB2	1.19	1.09
1:B:155:ASP:HB2	1:B:159:LEU:H	0.98	1.08
1:B:117:ILE:HG22	1:B:118:ARG:H	1.11	1.08
1:A:177:LEU:HG	1:A:202:ILE:HG21	1.32	1.08
1:A:351:GLN:NE2	1:A:352:VAL:O	1.86	1.08
1:A:340:ARG:HB2	1:A:361:LEU:HD13	1.35	1.07
1:A:155:ASP:CB	1:A:159:LEU:H	1.68	1.07
1:A:204:TYR:HA	1:A:207:MET:HB2	1.37	1.06
1:A:57:ILE:HA	1:A:60:PRO:HD2	1.37	1.06
1:B:340:ARG:HB2	1:B:361:LEU:HD13	1.33	1.06
1:A:276:ALA:HB1	1:A:426:TRP:NE1	1.71	1.06
1:B:45:ALA:HB3	1:B:49:ALA:HB2	1.10	1.05
1:B:276:ALA:HB1	1:B:426:TRP:NE1	1.70	1.05
1:A:94:GLN:HB3	1:A:238:LEU:HD11	1.33	1.05
1:B:408:ILE:CA	1:B:411:MET:HB2	1.86	1.05
1:A:74:PRO:CB	1:A:149:ALA:HB1	1.87	1.04
1:B:177:LEU:HG	1:B:202:ILE:HG21	1.38	1.04
1:A:117:ILE:HG22	1:A:118:ARG:H	1.15	1.04
1:B:204:TYR:HA	1:B:207:MET:HB2	1.36	1.04
1:B:203:VAL:HG12	1:B:207:MET:SD	1.97	1.04
1:B:351:GLN:NE2	1:B:352:VAL:O	1.90	1.04
1:A:155:ASP:HB2	1:A:159:LEU:N	1.73	1.04
1:B:137:VAL:HG11	1:B:201:ALA:HA	1.35	1.04
1:B:235:PRO:HA	1:B:238:LEU:HB2	1.37	1.03
1:B:246:PHE:HB3	1:B:247:PRO:HD3	1.40	1.03
1:A:246:PHE:HB3	1:A:247:PRO:HD3	1.38	1.03
1:B:352:VAL:HG22	1:B:353:VAL:HG23	1.41	1.03
1:B:94:GLN:HB3	1:B:238:LEU:HD11	1.38	1.02
1:A:4:SER:HA	1:A:7:ARG:HB2	1.38	1.02
1:B:74:PRO:HB2	1:B:149:ALA:HB1	1.06	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:446:TRP:CZ3	1:B:456:LEU:HD21	1.94	1.02
1:A:104:VAL:HA	1:A:107:ILE:HG13	1.38	1.01
1:A:73:VAL:HB	1:A:74:PRO:HD3	1.42	1.01
1:B:124:GLU:O	1:B:128:THR:HB	1.61	1.01
1:A:276:ALA:HB1	1:A:426:TRP:HE1	1.22	1.01
1:A:137:VAL:HG11	1:A:201:ALA:HA	1.38	1.01
1:B:155:ASP:CB	1:B:159:LEU:H	1.73	1.00
1:A:352:VAL:HG22	1:A:353:VAL:HG23	1.42	1.00
1:A:73:VAL:HG13	1:A:241:LEU:HG	1.42	1.00
1:B:73:VAL:HG13	1:B:241:LEU:HG	1.39	0.99
1:B:394:THR:CG2	1:B:439:MET:HB3	1.90	0.99
1:A:74:PRO:HB2	1:A:149:ALA:HB1	1.02	0.99
1:A:275:ALA:HA	1:A:353:VAL:CG1	1.92	0.99
1:B:74:PRO:CB	1:B:149:ALA:HB1	1.91	0.99
1:A:408:ILE:CA	1:A:411:MET:HB2	1.90	0.99
1:A:15:LEU:HD12	1:A:16:ILE:N	1.78	0.99
1:A:72:LEU:HB3	1:A:244:LEU:HD11	1.45	0.98
1:B:63:LEU:HD12	1:B:106:ILE:HG21	1.43	0.98
1:A:235:PRO:HA	1:A:238:LEU:HB2	1.45	0.98
1:B:107:ILE:HA	1:B:139:PHE:CZ	1.97	0.98
1:A:147:PHE:HB2	1:A:211:LEU:HD13	1.46	0.98
1:B:18:LEU:HD13	1:B:300:ILE:HD11	1.45	0.98
1:A:353:VAL:HG12	1:A:357:ALA:CA	1.94	0.98
1:B:340:ARG:HD2	1:B:358:MET:HG2	1.41	0.97
1:A:273:VAL:HG13	1:A:274:VAL:H	1.25	0.97
1:B:104:VAL:HA	1:B:107:ILE:HG13	1.44	0.96
1:B:275:ALA:HA	1:B:353:VAL:HG11	1.46	0.96
1:A:74:PRO:HB2	1:A:149:ALA:CB	1.95	0.96
1:A:77:ALA:CB	1:A:154:THR:HG23	1.96	0.95
1:B:15:LEU:HD12	1:B:16:ILE:N	1.79	0.95
1:B:147:PHE:HB2	1:B:211:LEU:HD13	1.46	0.95
1:A:394:THR:CG2	1:A:439:MET:HB3	1.97	0.95
1:A:107:ILE:HA	1:A:139:PHE:CZ	2.01	0.95
1:B:73:VAL:HB	1:B:74:PRO:HD3	1.46	0.95
1:B:13:SER:HB2	1:B:17:LYS:HE3	1.49	0.94
1:B:72:LEU:HB3	1:B:244:LEU:HD11	1.47	0.94
1:B:155:ASP:HB2	1:B:159:LEU:N	1.81	0.94
1:B:68:LEU:HD13	1:B:71:ALA:HB3	1.49	0.94
1:B:128:THR:O	1:B:131:VAL:HG22	1.67	0.94
1:A:165:VAL:HG13	1:A:166:ILE:H	0.78	0.94
1:A:258:LEU:HB3	1:A:399:TRP:HE1	1.33	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:262:VAL:HG21	1:A:403:LEU:HB3	1.45	0.94
1:B:83:GLY:O	1:B:85:GLN:N	2.01	0.94
1:A:203:VAL:HG12	1:A:207:MET:SD	2.07	0.94
1:B:92:VAL:HG21	1:B:150:LEU:HD22	1.47	0.93
1:B:340:ARG:HG3	1:B:341:GLU:H	1.31	0.93
1:B:172:LEU:O	1:B:176:PRO:HD2	1.66	0.93
1:A:213:PHE:O	1:A:217:THR:HB	1.69	0.93
1:A:239:ILE:HA	1:A:242:PHE:HB2	1.51	0.93
1:B:408:ILE:HA	1:B:411:MET:CB	1.99	0.93
1:B:165:VAL:HG13	1:B:166:ILE:H	0.76	0.93
1:B:77:ALA:CB	1:B:154:THR:HG23	1.99	0.92
1:B:353:VAL:HG12	1:B:357:ALA:CA	1.98	0.92
1:B:65:GLY:HA2	1:B:253:PHE:CG	2.05	0.92
1:B:276:ALA:HB1	1:B:426:TRP:HE1	1.27	0.92
1:B:154:THR:O	1:B:158:SER:HA	1.68	0.92
1:A:154:THR:O	1:A:158:SER:HA	1.69	0.92
1:A:128:THR:O	1:A:131:VAL:HG22	1.70	0.92
1:A:340:ARG:HG3	1:A:341:GLU:H	1.34	0.91
1:B:73:VAL:CG1	1:B:241:LEU:HG	2.00	0.91
1:B:117:ILE:HG22	1:B:118:ARG:N	1.86	0.91
1:B:235:PRO:O	1:B:239:ILE:HG13	1.69	0.91
1:A:68:LEU:HD13	1:A:71:ALA:HB3	1.51	0.91
1:A:32:MET:HB2	1:A:171:LEU:HA	1.51	0.91
1:A:63:LEU:HD12	1:A:106:ILE:HG21	1.52	0.91
1:B:385:LYS:HB3	1:B:387:MET:SD	2.11	0.91
1:A:65:GLY:HA2	1:A:253:PHE:CG	2.05	0.91
1:B:53:ILE:HD12	1:B:54:ALA:N	1.86	0.91
1:B:262:VAL:HG21	1:B:403:LEU:HB3	1.53	0.90
1:B:45:ALA:HB3	1:B:49:ALA:CB	2.01	0.90
1:B:213:PHE:O	1:B:217:THR:HB	1.71	0.90
1:A:86:HIS:CD2	1:B:83:GLY:HA2	2.07	0.90
1:A:258:LEU:HB3	1:A:399:TRP:NE1	1.86	0.90
1:A:10:LYS:HE3	1:A:14:ASN:HD21	1.35	0.90
1:B:312:LYS:HZ2	1:B:312:LYS:HA	1.34	0.90
1:B:32:MET:HB2	1:B:171:LEU:HA	1.54	0.89
1:B:55:ALA:O	1:B:58:TRP:HB2	1.72	0.89
1:B:239:ILE:HA	1:B:242:PHE:HB2	1.54	0.89
1:A:276:ALA:CB	1:A:426:TRP:HE1	1.86	0.89
1:B:203:VAL:O	1:B:207:MET:HG3	1.73	0.89
1:B:273:VAL:HG13	1:B:274:VAL:H	1.35	0.89
1:B:162:PRO:HG3	1:B:214:TYR:HD1	1.36	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:378:ALA:HB2	1:A:440:LEU:HG	1.55	0.89
1:A:73:VAL:CG1	1:A:241:LEU:HG	2.03	0.89
1:A:235:PRO:O	1:A:239:ILE:HG13	1.73	0.89
1:B:412:THR:O	1:B:416:THR:N	2.06	0.89
1:B:162:PRO:O	1:B:165:VAL:HG12	1.73	0.88
1:A:287:VAL:HG11	1:A:368:GLN:HG2	1.54	0.88
1:A:410:GLY:CA	1:A:425:PHE:HB3	2.03	0.88
1:A:5:VAL:HA	1:A:8:TYR:CZ	2.07	0.88
1:B:358:MET:HA	1:B:361:LEU:HD12	1.52	0.88
1:B:350:ASN:ND2	1:B:352:VAL:H	1.72	0.88
1:B:382:ARG:NH2	1:B:444:LEU:HA	1.88	0.88
1:A:13:SER:HB2	1:A:17:LYS:HE3	1.54	0.88
1:A:445:TYR:HB3	1:A:448:GLN:CA	2.04	0.88
1:A:53:ILE:HD12	1:A:54:ALA:N	1.89	0.88
1:B:298:VAL:HG13	1:B:317:ALA:HB1	1.53	0.88
1:A:447:LEU:O	1:A:448:GLN:HB2	1.73	0.87
1:A:410:GLY:HA3	1:A:425:PHE:CB	2.04	0.87
1:B:103:SER:HB2	1:B:139:PHE:HB3	1.57	0.87
1:A:25:ALA:HB2	1:A:163:ALA:HB1	1.55	0.87
1:A:162:PRO:HG3	1:A:214:TYR:HD1	1.39	0.87
1:A:403:LEU:HD21	1:A:429:PHE:CD2	2.10	0.87
1:B:410:GLY:HA3	1:B:425:PHE:CB	2.05	0.87
1:B:410:GLY:O	1:B:413:ASN:HB3	1.74	0.87
1:A:382:ARG:NH2	1:A:444:LEU:HA	1.90	0.87
1:A:208:LEU:HA	1:A:211:LEU:HD23	1.56	0.87
1:B:128:THR:HG22	1:B:129:LYS:N	1.90	0.87
1:B:275:ALA:HA	1:B:353:VAL:CG1	2.04	0.87
1:A:123:GLU:CD	1:A:127:ALA:HB3	1.95	0.86
1:A:447:LEU:HD13	1:A:448:GLN:O	1.75	0.86
1:B:275:ALA:HA	1:B:353:VAL:HG21	1.57	0.86
1:A:74:PRO:HG2	1:A:146:LEU:CD2	2.05	0.86
1:B:235:PRO:HA	1:B:238:LEU:CB	2.05	0.86
1:B:235:PRO:CA	1:B:238:LEU:HB2	2.04	0.86
1:A:231:HIS:C	1:A:235:PRO:HG2	1.95	0.86
1:A:199:ALA:O	1:A:203:VAL:HG23	1.75	0.86
1:A:18:LEU:HD13	1:A:300:ILE:HD11	1.58	0.86
1:B:74:PRO:HB2	1:B:149:ALA:CB	2.00	0.86
1:A:231:HIS:HB3	1:A:235:PRO:CG	2.04	0.86
1:B:145:LEU:HD13	1:B:148:GLN:NE2	1.91	0.86
1:B:22:VAL:HG23	1:B:23:LEU:H	1.40	0.86
1:B:69:LEU:HA	1:B:248:VAL:CG2	2.06	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:148:GLN:HA	1:A:152:SER:HB3	1.58	0.85
1:A:203:VAL:O	1:A:207:MET:HG3	1.76	0.85
1:A:215:ILE:HG23	1:A:216:VAL:H	1.41	0.85
1:B:10:LYS:HE3	1:B:14:ASN:HD21	1.40	0.85
1:B:131:VAL:HB	1:B:135:HIS:CE1	2.11	0.85
1:B:199:ALA:O	1:B:203:VAL:HG23	1.75	0.85
1:A:117:ILE:HG22	1:A:118:ARG:N	1.90	0.85
1:A:166:ILE:HD13	1:A:166:ILE:O	1.76	0.85
1:B:12:ALA:O	1:B:16:ILE:HG22	1.76	0.85
1:B:182:VAL:HG22	1:B:195:GLY:CA	2.07	0.85
1:B:258:LEU:HB3	1:B:399:TRP:HE1	1.39	0.85
1:A:69:LEU:HA	1:A:248:VAL:CG2	2.07	0.85
1:A:83:GLY:O	1:A:85:GLN:N	2.07	0.85
1:B:318:ALA:HA	1:B:381:LEU:HD21	1.57	0.85
1:A:57:ILE:CA	1:A:60:PRO:HD2	2.07	0.85
1:A:423:LYS:O	1:A:426:TRP:HB2	1.76	0.85
1:A:447:LEU:CD1	1:A:448:GLN:O	2.25	0.85
1:B:134:MET:O	1:B:137:VAL:HB	1.77	0.85
1:B:232:LYS:HB3	1:B:233:PRO:HD3	1.58	0.85
1:B:385:LYS:O	1:B:388:THR:HG23	1.77	0.85
1:A:15:LEU:HD12	1:A:16:ILE:H	1.39	0.85
1:A:385:LYS:O	1:A:388:THR:HG23	1.76	0.85
1:A:412:THR:O	1:A:416:THR:N	2.10	0.85
1:B:148:GLN:HA	1:B:152:SER:HB3	1.59	0.84
1:B:350:ASN:ND2	1:B:352:VAL:N	2.26	0.84
1:B:238:LEU:O	1:B:242:PHE:HB2	1.77	0.84
1:A:171:LEU:HD23	1:A:172:LEU:H	1.42	0.84
1:B:215:ILE:HG23	1:B:216:VAL:H	1.42	0.84
1:B:238:LEU:HA	1:B:241:LEU:HB2	1.59	0.84
1:A:77:ALA:HB2	1:A:154:THR:HG23	1.59	0.84
1:A:443:ARG:HH21	1:A:446:TRP:HZ3	1.26	0.84
1:A:447:LEU:HD13	1:A:450:GLN:NE2	1.91	0.84
1:A:20:THR:OG1	1:A:21:PRO:HD3	1.76	0.84
1:B:258:LEU:HB3	1:B:399:TRP:NE1	1.91	0.84
1:A:80:ASN:O	1:A:82:ALA:N	2.10	0.84
1:A:408:ILE:HA	1:A:411:MET:CB	2.03	0.84
1:B:42:GLY:HA2	1:B:50:ALA:N	1.91	0.84
1:B:171:LEU:HD23	1:B:172:LEU:H	1.40	0.84
1:B:353:VAL:HG12	1:B:357:ALA:N	1.92	0.84
1:B:5:VAL:HA	1:B:8:TYR:CZ	2.13	0.83
1:A:103:SER:HB2	1:A:139:PHE:HB3	1.59	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:222:ALA:O	1:A:223:HIS:CD2	2.32	0.83
1:A:353:VAL:O	1:A:356:LEU:N	2.10	0.83
1:A:298:VAL:HG13	1:A:317:ALA:HB1	1.58	0.83
1:A:131:VAL:HB	1:A:135:HIS:CE1	2.12	0.83
1:A:275:ALA:CA	1:A:353:VAL:HG11	2.06	0.83
1:B:25:ALA:HB2	1:B:163:ALA:HB1	1.58	0.83
1:B:276:ALA:CB	1:B:426:TRP:HE1	1.89	0.83
1:B:123:GLU:CD	1:B:127:ALA:HB3	1.98	0.83
1:B:231:HIS:C	1:B:235:PRO:HG2	1.99	0.83
1:A:140:ALA:HB1	1:A:204:TYR:CE2	2.12	0.83
1:B:378:ALA:HB2	1:B:440:LEU:HG	1.61	0.83
1:A:266:VAL:HG22	1:A:407:TYR:CZ	2.13	0.83
1:B:266:VAL:HG22	1:B:407:TYR:CZ	2.13	0.83
1:B:20:THR:OG1	1:B:21:PRO:HD3	1.79	0.83
1:B:236:LYS:HA	1:B:239:ILE:HD12	1.60	0.83
1:A:318:ALA:HA	1:A:381:LEU:HD21	1.61	0.82
1:B:72:LEU:HA	1:B:75:VAL:HG13	1.61	0.82
1:A:92:VAL:HG21	1:A:150:LEU:HD22	1.61	0.82
1:B:341:GLU:O	1:B:344:ALA:HB3	1.80	0.82
1:B:410:GLY:CA	1:B:425:PHE:HB3	2.07	0.82
1:B:412:THR:HG22	1:B:418:GLN:HE21	1.44	0.82
1:A:88:ILE:HG12	1:A:89:PRO:HD3	1.59	0.82
1:A:382:ARG:NH2	1:A:445:TYR:H	1.78	0.82
1:A:236:LYS:HA	1:A:239:ILE:HD12	1.62	0.82
1:B:403:LEU:HD21	1:B:429:PHE:CD2	2.14	0.82
1:B:124:GLU:O	1:B:128:THR:CB	2.26	0.82
1:B:351:GLN:CD	1:B:352:VAL:O	2.17	0.82
1:A:215:ILE:HG23	1:A:216:VAL:N	1.94	0.82
1:A:385:LYS:HB3	1:A:387:MET:SD	2.19	0.82
1:B:231:HIS:HB3	1:B:235:PRO:CG	2.10	0.82
1:A:15:LEU:CD1	1:A:16:ILE:H	1.93	0.82
1:B:77:ALA:HB2	1:B:154:THR:HG23	1.62	0.82
1:B:215:ILE:HG23	1:B:216:VAL:N	1.95	0.82
1:A:12:ALA:O	1:A:15:LEU:HG	1.80	0.81
1:A:340:ARG:CB	1:A:361:LEU:HD13	2.09	0.81
1:A:398:TYR:CD2	1:A:436:ALA:HB2	2.15	0.81
1:A:446:TRP:O	1:A:446:TRP:CD1	2.32	0.81
1:B:258:LEU:HD13	1:B:399:TRP:CE2	2.15	0.81
1:B:340:ARG:CB	1:B:361:LEU:HD13	2.09	0.81
1:B:446:TRP:HZ3	1:B:456:LEU:HD21	1.35	0.81
1:A:72:LEU:CB	1:A:248:VAL:HG11	2.11	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:36:ASP:O	1:B:40:ALA:HB3	1.80	0.81
1:B:208:LEU:HA	1:B:211:LEU:HD23	1.62	0.81
1:B:239:ILE:HA	1:B:242:PHE:CB	2.09	0.81
1:A:93:HIS:HD2	1:A:228:GLU:HB3	1.46	0.81
1:A:276:ALA:HA	1:A:360:LEU:HD13	1.63	0.81
1:B:127:ALA:O	1:B:131:VAL:HG13	1.81	0.81
1:B:200:THR:HA	1:B:203:VAL:CG2	2.09	0.81
1:B:332:THR:HG22	1:B:335:LEU:HD21	1.61	0.81
1:A:410:GLY:O	1:A:413:ASN:HB3	1.80	0.81
1:A:53:ILE:O	1:A:56:SER:HB3	1.81	0.81
1:A:232:LYS:HB3	1:A:233:PRO:HD3	1.62	0.81
1:A:238:LEU:HA	1:A:241:LEU:HB2	1.63	0.81
1:A:355:ALA:O	1:A:358:MET:HB3	1.81	0.81
1:B:74:PRO:HG2	1:B:146:LEU:CD2	2.11	0.81
1:B:93:HIS:HD2	1:B:228:GLU:HB3	1.46	0.81
1:A:239:ILE:HA	1:A:242:PHE:CB	2.10	0.81
1:A:248:VAL:HG23	1:A:249:ALA:N	1.95	0.80
1:B:80:ASN:O	1:B:82:ALA:N	2.13	0.80
1:B:332:THR:HG22	1:B:335:LEU:CD2	2.11	0.80
1:A:59:LEU:C	1:A:61:SER:H	1.85	0.80
1:B:320:VAL:HG13	1:B:321:GLY:N	1.97	0.80
1:B:57:ILE:HA	1:B:60:PRO:HD2	1.63	0.80
1:B:320:VAL:HG13	1:B:321:GLY:H	1.44	0.80
1:A:11:GLU:HB3	1:A:320:VAL:HG21	1.61	0.80
1:A:162:PRO:O	1:A:165:VAL:HG12	1.82	0.80
1:A:454:VAL:HG22	1:A:458:LEU:HD13	1.63	0.80
1:A:36:ASP:O	1:A:40:ALA:HB3	1.82	0.80
1:A:411:MET:O	1:A:414:TRP:HB2	1.81	0.80
1:A:96:LEU:O	1:A:99:ALA:HB3	1.80	0.80
1:B:275:ALA:HA	1:B:353:VAL:CG2	2.11	0.80
1:B:445:TYR:HB3	1:B:448:GLN:HA	1.64	0.80
1:A:350:ASN:ND2	1:A:352:VAL:H	1.80	0.80
1:A:12:ALA:O	1:A:16:ILE:HG22	1.80	0.80
1:A:45:ALA:HB3	1:A:49:ALA:CB	2.09	0.80
1:A:222:ALA:O	1:A:223:HIS:CG	2.35	0.80
1:A:231:HIS:HB3	1:A:235:PRO:CD	2.11	0.80
1:B:93:HIS:CD2	1:B:228:GLU:HB3	2.16	0.80
1:A:248:VAL:HG23	1:A:249:ALA:H	1.47	0.80
1:B:88:ILE:HG12	1:B:89:PRO:HD3	1.64	0.80
1:B:454:VAL:HG22	1:B:458:LEU:HD13	1.64	0.80
1:B:11:GLU:HB3	1:B:320:VAL:HG21	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:287:VAL:HG11	1:B:368:GLN:HG2	1.61	0.80
1:A:340:ARG:HD2	1:A:358:MET:HG2	1.62	0.79
1:B:166:ILE:O	1:B:166:ILE:HD13	1.82	0.79
1:A:294:ILE:HD12	1:A:325:GLY:HA2	1.62	0.79
1:B:69:LEU:HB2	1:B:249:ALA:HB2	1.64	0.79
1:A:182:VAL:HG22	1:A:195:GLY:CA	2.09	0.79
1:A:93:HIS:CD2	1:A:228:GLU:HB3	2.17	0.79
1:B:372:ALA:O	1:B:376:VAL:HG12	1.82	0.79
1:A:172:LEU:O	1:A:176:PRO:HD2	1.82	0.79
1:A:182:VAL:CG2	1:A:195:GLY:HA3	2.12	0.79
1:A:444:LEU:C	1:A:446:TRP:H	1.85	0.79
1:A:332:THR:HG22	1:A:335:LEU:HD21	1.65	0.79
1:A:320:VAL:HG13	1:A:321:GLY:N	1.98	0.79
1:A:353:VAL:O	1:A:355:ALA:N	2.16	0.79
1:B:196:CYS:O	1:B:199:ALA:HB3	1.83	0.79
1:A:235:PRO:CA	1:A:238:LEU:HB2	2.13	0.79
1:A:385:LYS:HE3	1:A:385:LYS:HA	1.65	0.79
1:B:237:GLU:O	1:B:241:LEU:HD13	1.83	0.79
1:B:72:LEU:CB	1:B:248:VAL:HG11	2.13	0.79
1:B:151:ARG:O	1:B:155:ASP:CG	2.20	0.79
1:A:134:MET:O	1:A:137:VAL:HB	1.82	0.78
1:B:312:LYS:HA	1:B:312:LYS:NZ	1.97	0.78
1:A:320:VAL:HG13	1:A:321:GLY:H	1.48	0.78
1:A:445:TYR:HB3	1:A:448:GLN:HA	1.65	0.78
1:B:11:GLU:HB3	1:B:320:VAL:CG2	2.14	0.78
1:B:66:VAL:O	1:B:69:LEU:HB3	1.82	0.78
1:B:162:PRO:C	1:B:165:VAL:HG12	2.04	0.78
1:B:238:LEU:HA	1:B:241:LEU:HD22	1.65	0.78
1:B:301:ARG:NH2	1:B:316:ILE:HG22	1.99	0.78
1:B:426:TRP:HA	1:B:426:TRP:CE3	2.16	0.78
1:A:96:LEU:O	1:A:96:LEU:HD23	1.82	0.78
1:A:128:THR:HG22	1:A:129:LYS:N	1.97	0.78
1:A:235:PRO:HA	1:A:238:LEU:CB	2.13	0.78
1:B:96:LEU:O	1:B:99:ALA:HB3	1.83	0.78
1:B:258:LEU:HD22	1:B:399:TRP:CZ2	2.17	0.78
1:A:452:ASP:O	1:A:455:GLN:HB2	1.83	0.78
1:B:140:ALA:HB1	1:B:204:TYR:CE2	2.19	0.78
1:B:204:TYR:HA	1:B:207:MET:CB	2.13	0.78
1:B:411:MET:O	1:B:414:TRP:HB2	1.82	0.78
1:B:32:MET:HG2	1:B:33:GLY:N	1.99	0.78
1:A:351:GLN:O	1:A:352:VAL:O	2.02	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:266:VAL:C	1:A:268:PRO:HD2	2.03	0.78
1:B:14:ASN:HB3	1:B:301:ARG:HG3	1.64	0.77
1:B:15:LEU:HD12	1:B:16:ILE:H	1.48	0.77
1:A:14:ASN:HB3	1:A:301:ARG:HG3	1.65	0.77
1:A:236:LYS:HA	1:A:239:ILE:HB	1.66	0.77
1:A:358:MET:HA	1:A:361:LEU:HD12	1.67	0.77
1:A:22:VAL:HG23	1:A:23:LEU:H	1.48	0.77
1:A:77:ALA:HB1	1:A:154:THR:HG23	1.63	0.77
1:A:232:LYS:C	1:A:235:PRO:HD2	2.05	0.77
1:A:352:VAL:O	1:A:354:VAL:N	2.18	0.77
1:B:236:LYS:HA	1:B:239:ILE:HB	1.65	0.77
1:B:265:LEU:HD12	1:B:407:TYR:OH	1.85	0.77
1:A:204:TYR:HA	1:A:207:MET:CB	2.14	0.77
1:A:287:VAL:HG11	1:A:368:GLN:CG	2.13	0.77
1:B:398:TYR:CD2	1:B:436:ALA:HB2	2.20	0.77
1:B:236:LYS:CA	1:B:239:ILE:HB	2.15	0.77
1:B:445:TYR:HB3	1:B:448:GLN:CA	2.15	0.77
1:A:258:LEU:HD13	1:A:399:TRP:CE2	2.19	0.77
1:B:382:ARG:O	1:B:387:MET:HG2	1.84	0.77
1:B:423:LYS:O	1:B:426:TRP:HB2	1.84	0.77
1:B:59:LEU:C	1:B:61:SER:H	1.87	0.77
1:B:231:HIS:HB3	1:B:235:PRO:CD	2.15	0.77
1:A:92:VAL:HG13	1:A:146:LEU:HD11	1.67	0.76
1:B:81:GLY:C	1:B:83:GLY:H	1.85	0.76
1:B:351:GLN:NE2	1:B:355:ALA:H	1.80	0.76
1:A:11:GLU:HB3	1:A:320:VAL:CG2	2.14	0.76
1:B:314:ALA:O	1:B:318:ALA:HB3	1.84	0.76
1:A:314:ALA:O	1:A:318:ALA:HB3	1.85	0.76
1:A:351:GLN:C	1:A:352:VAL:O	2.20	0.76
1:B:210:LEU:HD22	1:B:210:LEU:H	1.49	0.76
1:B:248:VAL:HG23	1:B:249:ALA:N	2.00	0.76
1:A:77:ALA:HB2	1:A:154:THR:CG2	2.16	0.76
1:B:117:ILE:CG2	1:B:118:ARG:H	1.94	0.76
1:B:162:PRO:HA	1:B:165:VAL:CG1	2.15	0.76
1:A:63:LEU:HD23	1:A:64:PHE:N	2.01	0.76
1:B:18:LEU:O	1:B:21:PRO:HD2	1.85	0.76
1:B:182:VAL:CG2	1:B:195:GLY:HA3	2.13	0.76
1:A:69:LEU:HB2	1:A:249:ALA:HB2	1.66	0.76
1:A:196:CYS:O	1:A:199:ALA:HB3	1.85	0.76
1:A:231:HIS:HB3	1:A:235:PRO:HD3	1.67	0.76
1:B:206:ILE:HG13	1:B:207:MET:N	1.99	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:232:LYS:C	1:B:235:PRO:HD2	2.05	0.76
1:B:215:ILE:HG23	1:B:216:VAL:HG23	1.68	0.76
1:A:301:ARG:NH2	1:A:316:ILE:HG22	2.00	0.76
1:B:14:ASN:HB3	1:B:301:ARG:CG	2.16	0.76
1:B:244:LEU:O	1:B:248:VAL:HG13	1.85	0.76
1:A:238:LEU:O	1:A:242:PHE:HB2	1.86	0.76
1:B:452:ASP:O	1:B:455:GLN:HB2	1.85	0.76
1:A:279:VAL:HG12	1:A:280:ALA:N	2.00	0.76
1:B:45:ALA:CB	1:B:49:ALA:HB2	2.05	0.76
1:B:77:ALA:HB1	1:B:154:THR:HG23	1.65	0.76
1:B:294:ILE:HD12	1:B:325:GLY:HA2	1.66	0.76
1:A:86:HIS:HD2	1:B:83:GLY:HA2	1.48	0.75
1:B:63:LEU:HD23	1:B:64:PHE:N	2.00	0.75
1:B:231:HIS:HB3	1:B:235:PRO:HD3	1.68	0.75
1:A:38:ILE:O	1:A:42:GLY:HA3	1.86	0.75
1:A:76:VAL:HG23	1:A:78:GLN:NE2	2.00	0.75
1:A:382:ARG:O	1:A:387:MET:HG2	1.86	0.75
1:A:412:THR:HG22	1:A:418:GLN:HE21	1.50	0.75
1:B:21:PRO:HA	1:B:164:MET:SD	2.27	0.75
1:A:382:ARG:HA	1:A:387:MET:HG3	1.69	0.75
1:B:212:LEU:HD12	1:B:216:VAL:HG21	1.68	0.75
1:B:275:ALA:CA	1:B:353:VAL:HG11	2.15	0.75
1:B:76:VAL:HG23	1:B:78:GLN:NE2	2.01	0.75
1:A:18:LEU:O	1:A:21:PRO:HD2	1.86	0.75
1:B:171:LEU:HD23	1:B:172:LEU:N	2.01	0.75
1:A:208:LEU:HD23	1:A:209:LEU:N	2.02	0.75
1:A:212:LEU:HD12	1:A:216:VAL:HG21	1.66	0.75
1:B:12:ALA:O	1:B:15:LEU:HG	1.86	0.75
1:A:15:LEU:CG	1:A:16:ILE:H	2.00	0.75
1:A:127:ALA:O	1:A:131:VAL:HG13	1.87	0.75
1:A:171:LEU:HD23	1:A:172:LEU:N	2.02	0.75
1:A:282:ASN:HB3	1:A:346:LEU:HD11	1.68	0.75
1:A:265:LEU:HD12	1:A:407:TYR:OH	1.86	0.75
1:B:118:ARG:NH2	1:B:119:PHE:HB2	2.02	0.75
1:B:279:VAL:HG12	1:B:280:ALA:N	2.00	0.75
1:B:385:LYS:CG	1:B:456:LEU:HB3	2.13	0.75
1:B:144:TYR:CD1	1:B:144:TYR:C	2.59	0.74
1:B:290:PHE:HB3	1:B:291:PRO:HD3	1.68	0.74
1:B:447:LEU:H	1:B:447:LEU:HD12	1.51	0.74
1:B:72:LEU:O	1:B:75:VAL:HG22	1.87	0.74
1:B:245:GLY:HA2	1:B:248:VAL:HG22	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:353:VAL:O	1:B:356:LEU:N	2.21	0.74
1:B:446:TRP:CH2	1:B:456:LEU:HD21	2.22	0.74
1:A:146:LEU:O	1:A:149:ALA:HB3	1.87	0.74
1:A:284:SER:HA	1:A:287:VAL:HG23	1.70	0.74
1:A:332:THR:HA	1:A:335:LEU:HG	1.67	0.74
1:B:110:LEU:O	1:B:114:GLN:HG2	1.86	0.74
1:A:81:GLY:C	1:A:83:GLY:H	1.91	0.74
1:A:258:LEU:HD22	1:A:399:TRP:CZ2	2.23	0.74
1:A:267:ALA:N	1:A:268:PRO:HD2	2.02	0.74
1:A:350:ASN:ND2	1:A:352:VAL:N	2.34	0.74
1:A:353:VAL:HG12	1:A:357:ALA:CB	2.17	0.74
1:A:426:TRP:HA	1:A:426:TRP:CE3	2.20	0.74
1:B:274:VAL:HG13	1:B:278:GLN:NE2	2.03	0.74
1:B:413:ASN:C	1:B:415:LEU:H	1.91	0.74
1:A:42:GLY:HA2	1:A:50:ALA:N	2.02	0.74
1:A:51:VAL:O	1:A:54:ALA:HB3	1.87	0.74
1:A:344:ALA:C	1:A:346:LEU:H	1.89	0.74
1:A:351:GLN:CD	1:A:352:VAL:O	2.25	0.74
1:A:144:TYR:CD1	1:A:144:TYR:C	2.59	0.74
1:A:379:GLY:O	1:A:383:GLY:HA3	1.88	0.74
1:B:146:LEU:O	1:B:149:ALA:HB3	1.88	0.74
1:A:245:GLY:HA2	1:A:248:VAL:HG22	1.68	0.74
1:B:409:LEU:C	1:B:412:THR:H	1.91	0.74
1:B:136:ALA:HA	1:B:139:PHE:CD2	2.23	0.74
1:B:351:GLN:HE21	1:B:355:ALA:H	1.34	0.74
1:B:355:ALA:O	1:B:358:MET:HB3	1.87	0.74
1:A:206:ILE:HG13	1:A:207:MET:N	2.01	0.74
1:B:332:THR:HA	1:B:335:LEU:HG	1.70	0.74
1:B:344:ALA:C	1:B:346:LEU:H	1.90	0.74
1:B:353:VAL:O	1:B:355:ALA:N	2.20	0.74
1:B:15:LEU:CD1	1:B:16:ILE:H	2.00	0.73
1:B:266:VAL:C	1:B:268:PRO:HD2	2.08	0.73
1:B:267:ALA:N	1:B:268:PRO:CD	2.51	0.73
1:A:279:VAL:HG11	1:A:360:LEU:CB	2.18	0.73
1:B:22:VAL:HG23	1:B:23:LEU:N	2.02	0.73
1:A:225:LYS:O	1:A:226:VAL:HG23	1.87	0.73
1:B:113:THR:O	1:B:117:ILE:N	2.18	0.73
1:B:248:VAL:HG23	1:B:249:ALA:H	1.52	0.73
1:B:376:VAL:HG13	1:B:377:ALA:H	1.54	0.73
1:B:57:ILE:CA	1:B:60:PRO:HD2	2.18	0.73
1:A:210:LEU:H	1:A:210:LEU:HD22	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:14:ASN:HB3	1:A:301:ARG:CG	2.19	0.73
1:A:66:VAL:O	1:A:69:LEU:HB3	1.89	0.73
1:B:185:LYS:HA	1:B:189:PRO:HD3	1.71	0.73
1:B:267:ALA:N	1:B:268:PRO:HD2	2.03	0.73
1:A:234:GLN:O	1:A:237:GLU:HB3	1.89	0.73
1:A:267:ALA:N	1:A:268:PRO:CD	2.50	0.73
1:B:15:LEU:CG	1:B:16:ILE:H	2.00	0.73
1:B:117:ILE:N	1:B:117:ILE:HD12	2.04	0.73
1:B:361:LEU:O	1:B:364:ALA:HB3	1.88	0.73
1:B:382:ARG:HA	1:B:387:MET:HG3	1.71	0.73
1:A:62:ILE:HD12	1:A:62:ILE:C	2.09	0.73
1:B:360:LEU:HD22	1:B:426:TRP:HD1	1.53	0.73
1:A:72:LEU:HA	1:A:75:VAL:HG13	1.70	0.72
1:A:145:LEU:HD13	1:A:148:GLN:NE2	2.04	0.72
1:A:155:ASP:O	1:A:157:MET:N	2.22	0.72
1:A:183:TYR:O	1:A:185:LYS:N	2.22	0.72
1:A:353:VAL:HG12	1:A:357:ALA:HB2	1.70	0.72
1:B:66:VAL:HA	1:B:249:ALA:HB1	1.69	0.72
1:B:66:VAL:HA	1:B:249:ALA:CB	2.20	0.72
1:A:73:VAL:CB	1:A:74:PRO:HD3	2.17	0.72
1:A:162:PRO:C	1:A:165:VAL:HG12	2.10	0.72
1:B:180:ILE:HG23	1:B:181:PHE:HD1	1.53	0.72
1:A:316:ILE:O	1:A:320:VAL:HG12	1.89	0.72
1:B:72:LEU:HA	1:B:75:VAL:CG1	2.19	0.72
1:B:282:ASN:OD1	1:B:346:LEU:HD21	1.90	0.72
1:A:231:HIS:O	1:A:235:PRO:HG2	1.89	0.72
1:A:276:ALA:HA	1:A:360:LEU:CD1	2.19	0.72
1:A:418:GLN:HG3	1:A:421:GLY:HA2	1.71	0.72
1:B:76:VAL:HA	1:B:78:GLN:HE21	1.55	0.72
1:A:275:ALA:O	1:A:279:VAL:HG23	1.89	0.72
1:B:208:LEU:HD23	1:B:209:LEU:N	2.03	0.72
1:B:287:VAL:HG11	1:B:368:GLN:CG	2.20	0.72
1:A:23:LEU:HD21	1:A:290:PHE:CD1	2.23	0.72
1:A:332:THR:HG22	1:A:335:LEU:CD2	2.18	0.72
1:A:351:GLN:NE2	1:A:355:ALA:H	1.88	0.72
1:B:130:THR:CG2	1:B:194:VAL:HG22	2.20	0.72
1:A:299:SER:HB2	1:A:380:SER:HA	1.72	0.72
1:B:68:LEU:HD22	1:B:71:ALA:CB	2.20	0.72
1:B:72:LEU:HD13	1:B:75:VAL:CG2	2.20	0.72
1:B:441:GLY:O	1:B:444:LEU:HB2	1.90	0.72
1:A:162:PRO:HA	1:A:165:VAL:CG1	2.20	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:275:ALA:CA	1:A:353:VAL:CG1	2.67	0.72
1:A:341:GLU:O	1:A:344:ALA:HB3	1.89	0.72
1:B:182:VAL:HG13	1:B:192:GLY:HA2	1.72	0.72
1:B:106:ILE:HG22	1:B:139:PHE:HE1	1.55	0.71
1:A:32:MET:HG3	1:A:174:ASN:OD1	1.90	0.71
1:A:275:ALA:HA	1:A:353:VAL:HG21	1.72	0.71
1:B:81:GLY:O	1:B:83:GLY:N	2.23	0.71
1:B:282:ASN:HB3	1:B:346:LEU:HD11	1.71	0.71
1:B:316:ILE:O	1:B:320:VAL:HG12	1.88	0.71
1:B:351:GLN:OE1	1:B:352:VAL:N	2.23	0.71
1:A:110:LEU:O	1:A:114:GLN:HG2	1.89	0.71
1:A:236:LYS:CA	1:A:239:ILE:HB	2.20	0.71
1:B:329:ALA:O	1:B:333:ALA:HB2	1.90	0.71
1:A:68:LEU:HD22	1:A:71:ALA:CB	2.19	0.71
1:A:150:LEU:O	1:A:155:ASP:N	2.22	0.71
1:A:72:LEU:HB2	1:A:248:VAL:HG11	1.71	0.71
1:A:117:ILE:HD12	1:A:117:ILE:N	2.05	0.71
1:A:282:ASN:OD1	1:A:346:LEU:HD21	1.89	0.71
1:A:353:VAL:HG12	1:A:357:ALA:N	2.04	0.71
1:B:77:ALA:HB2	1:B:154:THR:CG2	2.20	0.71
1:B:126:MET:O	1:B:130:THR:HG23	1.90	0.71
1:A:419:PRO:O	1:A:420:LEU:HB2	1.90	0.71
1:B:318:ALA:HA	1:B:381:LEU:CD2	2.20	0.71
1:A:104:VAL:HA	1:A:107:ILE:CG1	2.17	0.71
1:A:382:ARG:N	1:A:382:ARG:HD2	2.06	0.71
1:B:413:ASN:HB2	1:B:418:GLN:CG	2.21	0.71
1:A:144:TYR:HD1	1:A:145:LEU:N	1.89	0.71
1:A:200:THR:HA	1:A:203:VAL:CG2	2.21	0.71
1:B:183:TYR:O	1:B:185:LYS:N	2.24	0.71
1:B:185:LYS:HA	1:B:189:PRO:CD	2.21	0.71
1:A:351:GLN:OE1	1:A:352:VAL:N	2.24	0.70
1:B:290:PHE:CB	1:B:291:PRO:HD3	2.20	0.70
1:A:287:VAL:HG11	1:A:368:GLN:CD	2.11	0.70
1:B:93:HIS:HE1	1:B:225:LYS:HB3	1.54	0.70
1:B:328:THR:HA	1:B:331:ILE:HB	1.73	0.70
1:A:231:HIS:CE1	1:A:234:GLN:HB2	2.26	0.70
1:B:73:VAL:CB	1:B:74:PRO:HD3	2.21	0.70
1:B:135:HIS:O	1:B:138:ILE:HG22	1.90	0.70
1:B:231:HIS:O	1:B:235:PRO:HG2	1.91	0.70
1:A:238:LEU:HA	1:A:241:LEU:HD22	1.74	0.70
1:A:329:ALA:HB1	1:A:369:CYS:HA	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:379:GLY:O	1:B:383:GLY:HA3	1.90	0.70
1:A:279:VAL:HG11	1:A:360:LEU:HB2	1.74	0.70
1:A:314:ALA:HB1	1:A:445:TYR:CE1	2.27	0.70
1:B:34:PHE:O	1:B:38:ILE:HG22	1.91	0.70
1:B:244:LEU:HD13	1:B:244:LEU:C	2.10	0.70
1:A:409:LEU:C	1:A:412:THR:H	1.95	0.70
1:B:352:VAL:O	1:B:354:VAL:N	2.24	0.70
1:A:413:ASN:HB2	1:A:418:GLN:CG	2.20	0.70
1:B:413:ASN:HA	1:B:417:GLU:HA	1.72	0.70
1:A:141:VAL:HG22	1:A:207:MET:SD	2.31	0.70
1:A:244:LEU:O	1:A:248:VAL:HG13	1.91	0.70
1:A:298:VAL:HG11	1:A:381:LEU:HD21	1.73	0.70
1:A:328:THR:HA	1:A:331:ILE:HB	1.73	0.70
1:B:275:ALA:HB1	1:B:353:VAL:HG13	1.73	0.70
1:A:174:ASN:HD21	1:A:203:VAL:HG22	1.56	0.70
1:A:385:LYS:CG	1:A:456:LEU:HB3	2.18	0.70
1:A:398:TYR:HE2	1:A:433:LEU:HD12	1.56	0.70
1:A:117:ILE:CG2	1:A:118:ARG:H	1.97	0.69
1:A:351:GLN:NE2	1:A:354:VAL:HB	2.05	0.69
1:B:92:VAL:HG13	1:B:146:LEU:HD11	1.73	0.69
1:B:150:LEU:O	1:B:155:ASP:N	2.22	0.69
1:A:5:VAL:O	1:A:9:LYS:HB2	1.91	0.69
1:A:72:LEU:O	1:A:75:VAL:HG22	1.91	0.69
1:A:237:GLU:O	1:A:241:LEU:HD13	1.91	0.69
1:A:413:ASN:HA	1:A:417:GLU:HA	1.74	0.69
1:B:16:ILE:HA	1:B:19:ALA:HB3	1.74	0.69
1:B:18:LEU:HD13	1:B:300:ILE:CD1	2.20	0.69
1:B:62:ILE:C	1:B:62:ILE:HD12	2.12	0.69
1:B:185:LYS:HG2	1:B:189:PRO:HD3	1.72	0.69
1:B:262:VAL:HG11	1:B:403:LEU:HD22	1.74	0.69
1:B:150:LEU:O	1:B:154:THR:HB	1.92	0.69
1:B:237:GLU:HA	1:B:240:ARG:HB2	1.74	0.69
1:A:124:GLU:O	1:A:128:THR:OG1	2.09	0.69
1:A:248:VAL:CG2	1:A:249:ALA:H	2.05	0.69
1:B:72:LEU:HD13	1:B:75:VAL:HG22	1.72	0.69
1:A:81:GLY:O	1:A:308:GLU:HA	1.93	0.69
1:A:136:ALA:HA	1:A:139:PHE:CD2	2.28	0.69
1:B:271:SER:C	1:B:273:VAL:H	1.95	0.69
1:B:418:GLN:HG3	1:B:421:GLY:HA2	1.74	0.69
1:B:426:TRP:HA	1:B:426:TRP:HE3	1.54	0.69
1:A:59:LEU:HB2	1:A:60:PRO:HD3	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:80:ASN:O	1:A:80:ASN:OD1	2.11	0.69
1:A:413:ASN:C	1:A:415:LEU:H	1.96	0.69
1:B:72:LEU:HB2	1:B:248:VAL:HG11	1.75	0.69
1:B:110:LEU:HD13	1:B:111:PHE:N	2.08	0.69
1:B:151:ARG:HA	1:B:155:ASP:HA	1.75	0.69
1:B:181:PHE:CB	1:B:198:VAL:HG11	2.22	0.69
1:B:382:ARG:N	1:B:382:ARG:HD2	2.07	0.69
1:B:62:ILE:HD12	1:B:63:LEU:N	2.08	0.69
1:B:235:PRO:HA	1:B:238:LEU:HD13	1.73	0.69
1:B:244:LEU:HD13	1:B:245:GLY:N	2.08	0.69
1:A:441:GLY:O	1:A:444:LEU:HB2	1.93	0.69
1:B:363:PHE:CD2	1:B:426:TRP:HB3	2.28	0.69
1:B:444:LEU:O	1:B:444:LEU:HD13	1.92	0.69
1:A:39:MET:SD	1:A:40:ALA:N	2.66	0.68
1:A:124:GLU:CD	1:A:125:ALA:H	1.96	0.68
1:B:418:GLN:HB3	1:B:420:LEU:O	1.93	0.68
1:A:161:LYS:N	1:A:162:PRO:CD	2.56	0.68
1:B:419:PRO:O	1:B:420:LEU:HB2	1.92	0.68
1:B:329:ALA:HB1	1:B:369:CYS:HA	1.74	0.68
1:B:398:TYR:HE2	1:B:433:LEU:HD12	1.57	0.68
1:B:418:GLN:C	1:B:420:LEU:H	1.97	0.68
1:A:62:ILE:HD12	1:A:63:LEU:N	2.08	0.68
1:A:445:TYR:CB	1:A:448:GLN:HA	2.24	0.68
1:A:275:ALA:HA	1:A:353:VAL:CG2	2.23	0.68
1:A:351:GLN:HE22	1:A:353:VAL:C	1.96	0.68
1:B:298:VAL:HG11	1:B:381:LEU:HD21	1.74	0.68
1:B:53:ILE:O	1:B:56:SER:HB3	1.93	0.68
1:B:218:SER:C	1:B:220:ARG:H	1.95	0.68
1:B:275:ALA:O	1:B:279:VAL:HG23	1.93	0.68
1:A:11:GLU:C	1:A:15:LEU:HD23	2.15	0.68
1:A:182:VAL:HG13	1:A:192:GLY:HA2	1.76	0.68
1:B:350:ASN:HD21	1:B:352:VAL:H	1.40	0.68
1:A:76:VAL:HA	1:A:78:GLN:HE21	1.59	0.68
1:A:101:LEU:O	1:A:105:PRO:HG2	1.94	0.68
1:B:236:LYS:C	1:B:239:ILE:HB	2.14	0.68
1:B:301:ARG:NH2	1:B:316:ILE:CG2	2.56	0.68
1:B:332:THR:HA	1:B:335:LEU:CG	2.24	0.68
1:B:385:LYS:HA	1:B:385:LYS:HE3	1.74	0.68
1:A:151:ARG:HA	1:A:155:ASP:HA	1.74	0.68
1:A:180:ILE:HG23	1:A:181:PHE:HD1	1.59	0.68
1:A:301:ARG:NH2	1:A:316:ILE:CG2	2.57	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:342:GLN:HA	1:A:345:LEU:HD12	1.76	0.68
1:A:420:LEU:HB3	1:A:423:LYS:HD3	1.76	0.68
1:B:401:LEU:O	1:B:405:THR:HB	1.94	0.68
1:B:23:LEU:HD21	1:B:290:PHE:CD1	2.29	0.67
1:B:276:ALA:HB1	1:B:426:TRP:CE2	2.29	0.67
1:B:276:ALA:CB	1:B:426:TRP:NE1	2.49	0.67
1:B:350:ASN:HD21	1:B:352:VAL:N	1.92	0.67
1:B:366:ILE:HG22	1:B:430:ILE:HD12	1.76	0.67
1:A:266:VAL:CA	1:A:268:PRO:HD2	2.24	0.67
1:A:351:GLN:HE21	1:A:355:ALA:H	1.40	0.67
1:B:78:GLN:C	1:B:80:ASN:H	1.98	0.67
1:A:22:VAL:HG23	1:A:23:LEU:N	2.10	0.67
1:B:81:GLY:HA3	1:B:307:GLY:C	2.14	0.67
1:B:144:TYR:HD1	1:B:145:LEU:N	1.90	0.67
1:B:411:MET:HA	1:B:414:TRP:CE3	2.30	0.67
1:A:106:ILE:HG22	1:A:139:PHE:HE1	1.58	0.67
1:A:135:HIS:O	1:A:138:ILE:HG22	1.94	0.67
1:A:151:ARG:HH12	1:A:219:LYS:NZ	1.93	0.67
1:A:290:PHE:HB3	1:A:291:PRO:HD3	1.75	0.67
1:A:445:TYR:CD2	1:A:448:GLN:HA	2.29	0.67
1:B:246:PHE:HB3	1:B:247:PRO:CD	2.21	0.67
1:B:351:GLN:HE22	1:B:353:VAL:C	1.97	0.67
1:A:113:THR:O	1:A:117:ILE:N	2.23	0.67
1:A:272:THR:O	1:A:275:ALA:HB3	1.94	0.67
1:A:446:TRP:CD1	1:A:446:TRP:C	2.66	0.67
1:B:234:GLN:O	1:B:237:GLU:HB3	1.94	0.67
1:B:287:VAL:HG11	1:B:368:GLN:CD	2.15	0.67
1:B:394:THR:HG23	1:B:439:MET:HB3	1.77	0.67
1:A:356:LEU:HD21	1:A:420:LEU:HG	1.76	0.67
1:A:365:ALA:O	1:A:368:GLN:HB2	1.95	0.67
1:A:373:VAL:HG13	1:A:374:GLN:N	2.10	0.67
1:A:426:TRP:HA	1:A:426:TRP:HE3	1.57	0.67
1:B:443:ARG:O	1:B:443:ARG:HD3	1.95	0.67
1:B:275:ALA:CA	1:B:353:VAL:HG21	2.24	0.67
1:B:400:VAL:CG1	1:B:401:LEU:N	2.57	0.67
1:A:151:ARG:HG3	1:A:162:PRO:HG2	1.77	0.67
1:A:275:ALA:HB1	1:A:353:VAL:HG13	1.77	0.67
1:A:403:LEU:O	1:A:407:TYR:HB3	1.95	0.67
1:A:162:PRO:HG3	1:A:214:TYR:CD1	2.27	0.66
1:B:51:VAL:O	1:B:54:ALA:HB3	1.93	0.66
1:A:32:MET:HG2	1:A:33:GLY:N	2.08	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:150:LEU:O	1:A:154:THR:HB	1.95	0.66
1:A:222:ALA:C	1:A:223:HIS:CG	2.69	0.66
1:A:247:PRO:HB3	1:A:389:ALA:HA	1.76	0.66
1:A:382:ARG:HH21	1:A:444:LEU:HA	1.60	0.66
1:A:175:ILE:HB	1:A:176:PRO:CD	2.25	0.66
1:A:181:PHE:CB	1:A:198:VAL:HG11	2.24	0.66
1:A:215:ILE:HG23	1:A:216:VAL:HG23	1.75	0.66
1:B:161:LYS:N	1:B:162:PRO:CD	2.58	0.66
1:B:350:ASN:OD1	1:B:352:VAL:HB	1.95	0.66
1:A:218:SER:C	1:A:220:ARG:H	1.97	0.66
1:A:411:MET:HA	1:A:414:TRP:CE3	2.31	0.66
1:B:136:ALA:HA	1:B:139:PHE:CE2	2.31	0.66
1:A:118:ARG:HH11	1:A:118:ARG:HG3	1.60	0.66
1:B:151:ARG:HH12	1:B:219:LYS:NZ	1.92	0.66
1:B:162:PRO:HG3	1:B:214:TYR:CD1	2.24	0.66
1:B:225:LYS:O	1:B:226:VAL:HG23	1.95	0.66
1:B:451:SER:O	1:B:454:VAL:HG12	1.95	0.66
1:A:10:LYS:CG	1:A:301:ARG:HH21	2.08	0.66
1:A:361:LEU:O	1:A:364:ALA:HB3	1.95	0.66
1:A:401:LEU:O	1:A:405:THR:HB	1.95	0.66
1:B:272:THR:O	1:B:275:ALA:HB3	1.96	0.66
1:A:276:ALA:HB1	1:A:426:TRP:CE2	2.31	0.66
1:A:353:VAL:HG12	1:A:357:ALA:HA	1.76	0.66
1:B:398:TYR:HB2	1:B:436:ALA:HB2	1.78	0.66
1:A:262:VAL:HG11	1:A:403:LEU:HD22	1.78	0.66
1:A:373:VAL:HG13	1:A:374:GLN:H	1.59	0.66
1:A:413:ASN:HB2	1:A:418:GLN:HG2	1.77	0.66
1:B:76:VAL:C	1:B:78:GLN:H	1.97	0.66
1:B:80:ASN:O	1:B:80:ASN:OD1	2.13	0.66
1:B:330:CYS:O	1:B:334:LEU:HD13	1.94	0.66
1:A:151:ARG:O	1:A:155:ASP:CG	2.34	0.66
1:A:174:ASN:ND2	1:A:203:VAL:HG22	2.10	0.66
1:A:318:ALA:HA	1:A:381:LEU:CD2	2.26	0.66
1:A:418:GLN:C	1:A:420:LEU:H	1.97	0.66
1:B:340:ARG:HD2	1:B:358:MET:CG	2.22	0.66
1:B:352:VAL:O	1:B:353:VAL:C	2.33	0.66
1:B:373:VAL:HG13	1:B:374:GLN:H	1.60	0.66
1:A:444:LEU:O	1:A:444:LEU:HD13	1.95	0.66
1:B:93:HIS:CE1	1:B:225:LYS:CB	2.79	0.66
1:B:155:ASP:O	1:B:157:MET:N	2.29	0.66
1:A:52:SER:HB3	1:A:123:GLU:HG2	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:136:ALA:HA	1:A:139:PHE:CE2	2.31	0.65
1:A:174:ASN:C	1:A:178:ASN:HD22	2.00	0.65
1:A:341:GLU:OE1	1:A:342:GLN:N	2.29	0.65
1:B:35:VAL:O	1:B:39:MET:HB3	1.96	0.65
1:B:118:ARG:HH11	1:B:118:ARG:HG3	1.61	0.65
1:A:235:PRO:HA	1:A:238:LEU:HD13	1.76	0.65
1:A:275:ALA:CB	1:A:353:VAL:HG13	2.25	0.65
1:A:344:ALA:HB2	1:A:361:LEU:HD11	1.78	0.65
1:B:93:HIS:CE1	1:B:225:LYS:HB3	2.30	0.65
1:A:290:PHE:CB	1:A:291:PRO:HD3	2.26	0.65
1:B:211:LEU:HG	1:B:212:LEU:H	1.60	0.65
1:B:382:ARG:HH21	1:B:444:LEU:HA	1.60	0.65
1:A:180:ILE:HG23	1:A:181:PHE:N	2.12	0.65
1:A:295:GLY:O	1:A:380:SER:HB2	1.96	0.65
1:A:332:THR:HA	1:A:335:LEU:CG	2.25	0.65
1:B:347:TYR:HB3	1:B:349:GLU:CD	2.16	0.65
1:B:398:TYR:HH	1:B:429:PHE:HE1	1.44	0.65
1:B:409:LEU:HA	1:B:412:THR:HB	1.77	0.65
1:A:21:PRO:HA	1:A:164:MET:SD	2.36	0.65
1:A:81:GLY:O	1:A:83:GLY:N	2.29	0.65
1:A:353:VAL:CG1	1:A:357:ALA:HB2	2.26	0.65
1:B:50:ALA:O	1:B:53:ILE:HG13	1.97	0.65
1:B:215:ILE:CG2	1:B:216:VAL:H	2.09	0.65
1:B:244:LEU:O	1:B:244:LEU:HD22	1.96	0.65
1:B:374:GLN:O	1:B:378:ALA:HB3	1.97	0.65
1:B:235:PRO:CB	1:B:238:LEU:HD22	2.27	0.65
1:A:399:TRP:CZ3	1:A:400:VAL:HG23	2.32	0.65
1:B:275:ALA:CB	1:B:353:VAL:HG13	2.27	0.65
1:B:344:ALA:HB2	1:B:361:LEU:HD11	1.78	0.65
1:A:151:ARG:HH12	1:A:219:LYS:HZ3	1.41	0.65
1:A:151:ARG:HG3	1:A:152:SER:N	2.12	0.65
1:B:81:GLY:C	1:B:83:GLY:N	2.50	0.65
1:B:248:VAL:CG2	1:B:249:ALA:H	2.10	0.65
1:B:279:VAL:HG11	1:B:360:LEU:HB2	1.79	0.65
1:A:74:PRO:HA	1:A:76:VAL:HG12	1.79	0.65
1:A:360:LEU:HD22	1:A:426:TRP:HD1	1.62	0.65
1:A:363:PHE:CD2	1:A:426:TRP:HB3	2.32	0.65
1:A:367:TYR:CA	1:A:430:ILE:HD11	2.26	0.65
1:B:173:LEU:O	1:B:177:LEU:HD23	1.96	0.65
1:A:38:ILE:HG23	1:A:39:MET:N	2.12	0.65
1:A:151:ARG:HG3	1:A:152:SER:H	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:400:VAL:CG1	1:A:401:LEU:N	2.60	0.65
1:B:276:ALA:HA	1:B:360:LEU:CD1	2.26	0.65
1:B:341:GLU:OE1	1:B:342:GLN:N	2.29	0.65
1:A:19:ALA:O	1:A:22:VAL:HG22	1.97	0.64
1:A:70:MET:HE1	1:A:99:ALA:HB2	1.79	0.64
1:A:123:GLU:O	1:A:126:MET:HB2	1.97	0.64
1:A:386:ASP:OD1	1:A:456:LEU:HD22	1.97	0.64
1:B:237:GLU:O	1:B:241:LEU:N	2.29	0.64
1:B:238:LEU:CA	1:B:241:LEU:HB2	2.26	0.64
1:A:173:LEU:O	1:A:177:LEU:HD23	1.97	0.64
1:B:351:GLN:NE2	1:B:354:VAL:HB	2.11	0.64
1:A:276:ALA:CB	1:A:426:TRP:NE1	2.49	0.64
1:A:405:THR:O	1:A:409:LEU:HB2	1.97	0.64
1:B:141:VAL:HG22	1:B:207:MET:SD	2.37	0.64
1:A:23:LEU:O	1:A:27:VAL:HG23	1.97	0.64
1:A:72:LEU:HA	1:A:75:VAL:CG1	2.28	0.64
1:B:57:ILE:C	1:B:60:PRO:HD2	2.17	0.64
1:B:63:LEU:HD12	1:B:106:ILE:CG2	2.24	0.64
1:B:175:ILE:HB	1:B:176:PRO:CD	2.27	0.64
1:A:118:ARG:NH2	1:A:119:PHE:HB2	2.11	0.64
1:A:409:LEU:HA	1:A:412:THR:HB	1.79	0.64
1:B:19:ALA:O	1:B:22:VAL:HG22	1.97	0.64
1:B:69:LEU:HA	1:B:248:VAL:HG23	1.80	0.64
1:B:107:ILE:HG12	1:B:139:PHE:CD2	2.32	0.64
1:B:147:PHE:CB	1:B:211:LEU:HD13	2.27	0.64
1:B:247:PRO:HB3	1:B:389:ALA:HA	1.80	0.64
1:B:259:PHE:HE1	1:B:429:PHE:CE2	2.16	0.64
1:B:284:SER:HA	1:B:287:VAL:HG23	1.80	0.64
1:A:244:LEU:C	1:A:244:LEU:HD13	2.18	0.64
1:A:248:VAL:CG2	1:A:249:ALA:N	2.60	0.64
1:B:388:THR:HA	1:B:391:PHE:CD1	2.33	0.64
1:A:230:PHE:O	1:A:231:HIS:HB2	1.96	0.64
1:A:257:THR:CG2	1:A:258:LEU:N	2.61	0.64
1:A:271:SER:C	1:A:273:VAL:H	2.00	0.64
1:B:236:LYS:HA	1:B:239:ILE:CD1	2.28	0.64
1:A:10:LYS:HE3	1:A:14:ASN:ND2	2.11	0.64
1:B:151:ARG:NH2	1:B:162:PRO:HD3	2.13	0.64
1:A:10:LYS:HE2	1:A:305:LYS:NZ	2.13	0.64
1:A:151:ARG:NH2	1:A:162:PRO:HD3	2.13	0.64
1:A:185:LYS:HG2	1:A:189:PRO:HD3	1.80	0.64
1:A:344:ALA:O	1:A:346:LEU:N	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:372:ALA:O	1:A:376:VAL:HG12	1.98	0.64
1:B:32:MET:HG3	1:B:174:ASN:OD1	1.97	0.64
1:B:104:VAL:HA	1:B:107:ILE:CG1	2.23	0.63
1:B:139:PHE:C	1:B:142:PRO:HD2	2.18	0.63
1:B:235:PRO:HG3	1:B:238:LEU:HD22	1.80	0.63
1:B:408:ILE:C	1:B:411:MET:HB2	2.19	0.63
1:A:339:PHE:O	1:A:343:ILE:HG12	1.99	0.63
1:B:151:ARG:HG3	1:B:162:PRO:HG2	1.80	0.63
1:B:180:ILE:HG23	1:B:181:PHE:N	2.13	0.63
1:A:76:VAL:C	1:A:78:GLN:H	2.01	0.63
1:A:139:PHE:C	1:A:142:PRO:HD2	2.19	0.63
1:A:418:GLN:HB3	1:A:420:LEU:O	1.99	0.63
1:B:231:HIS:CE1	1:B:234:GLN:HB2	2.34	0.63
1:B:271:SER:C	1:B:273:VAL:N	2.52	0.63
1:A:150:LEU:O	1:A:150:LEU:HD12	1.98	0.63
1:A:195:GLY:O	1:A:199:ALA:N	2.31	0.63
1:A:215:ILE:CG2	1:A:216:VAL:H	2.09	0.63
1:B:15:LEU:CD1	1:B:16:ILE:N	2.55	0.63
1:B:398:TYR:CG	1:B:436:ALA:HB2	2.33	0.63
1:B:11:GLU:C	1:B:15:LEU:HD23	2.19	0.63
1:B:273:VAL:HG22	1:B:274:VAL:N	2.13	0.63
1:B:280:ALA:O	1:B:284:SER:HB2	1.97	0.63
1:B:403:LEU:O	1:B:407:TYR:HB3	1.98	0.63
1:A:72:LEU:HG	1:A:244:LEU:HD21	1.81	0.63
1:B:59:LEU:O	1:B:62:ILE:HG13	1.98	0.63
1:B:413:ASN:HB2	1:B:418:GLN:HG2	1.80	0.63
1:A:367:TYR:HA	1:A:430:ILE:CD1	2.29	0.63
1:B:389:ALA:O	1:B:392:HIS:HB3	1.99	0.63
1:A:72:LEU:HD13	1:A:75:VAL:HG22	1.81	0.63
1:A:369:CYS:SG	1:A:370:MET:N	2.71	0.63
1:A:446:TRP:HD1	1:A:447:LEU:HG	1.62	0.63
1:B:5:VAL:O	1:B:9:LYS:HB2	1.99	0.63
1:B:144:TYR:OH	1:B:166:ILE:HG21	1.99	0.63
1:A:73:VAL:HB	1:A:74:PRO:CD	2.24	0.63
1:B:38:ILE:O	1:B:42:GLY:HA3	1.98	0.63
1:B:174:ASN:C	1:B:178:ASN:HD22	2.01	0.63
1:A:254:PHE:O	1:A:257:THR:HG22	1.99	0.62
1:A:350:ASN:HD21	1:A:352:VAL:H	1.47	0.62
1:A:398:TYR:CG	1:A:436:ALA:HB2	2.34	0.62
1:A:15:LEU:CD1	1:A:16:ILE:N	2.55	0.62
1:B:236:LYS:O	1:B:239:ILE:HB	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:16:ILE:HA	1:A:19:ALA:HB3	1.81	0.62
1:A:63:LEU:O	1:A:65:GLY:N	2.33	0.62
1:B:351:GLN:C	1:B:352:VAL:O	2.32	0.62
1:B:353:VAL:HG12	1:B:357:ALA:CB	2.29	0.62
1:A:57:ILE:HA	1:A:60:PRO:CD	2.24	0.62
1:B:52:SER:HA	1:B:123:GLU:HG3	1.80	0.62
1:B:101:LEU:O	1:B:105:PRO:HG2	2.00	0.62
1:A:34:PHE:CD1	1:A:34:PHE:C	2.72	0.62
1:A:59:LEU:O	1:A:62:ILE:HG13	1.99	0.62
1:A:124:GLU:OE1	1:A:125:ALA:N	2.32	0.62
1:B:444:LEU:HD22	1:B:445:TYR:CD1	2.34	0.62
1:A:34:PHE:O	1:A:38:ILE:HG22	1.98	0.62
1:A:72:LEU:HD13	1:A:75:VAL:CG2	2.29	0.62
1:A:147:PHE:CB	1:A:211:LEU:HD13	2.26	0.62
1:A:211:LEU:HG	1:A:212:LEU:H	1.64	0.62
1:A:351:GLN:O	1:A:354:VAL:HB	1.99	0.62
1:B:14:ASN:HA	1:B:17:LYS:HD2	1.80	0.62
1:B:257:THR:CG2	1:B:258:LEU:N	2.62	0.62
1:B:259:PHE:CE1	1:B:429:PHE:CE2	2.88	0.62
1:A:52:SER:HA	1:A:123:GLU:HG3	1.81	0.62
1:A:59:LEU:O	1:A:61:SER:N	2.33	0.62
1:A:84:ARG:HG2	1:A:87:LYS:HZ2	1.65	0.62
1:B:80:ASN:OD1	1:B:157:MET:HA	1.99	0.62
1:A:244:LEU:HD13	1:A:245:GLY:N	2.14	0.62
1:A:246:PHE:HB3	1:A:247:PRO:CD	2.21	0.62
1:A:398:TYR:HH	1:A:429:PHE:HE1	1.46	0.62
1:B:18:LEU:C	1:B:21:PRO:HD2	2.20	0.62
1:B:168:PHE:O	1:B:172:LEU:HB2	2.00	0.62
1:B:215:ILE:CG2	1:B:216:VAL:N	2.63	0.62
1:B:320:VAL:CG1	1:B:321:GLY:H	2.13	0.62
1:B:392:HIS:O	1:B:395:PHE:CB	2.47	0.62
1:A:151:ARG:O	1:A:155:ASP:N	2.33	0.62
1:A:403:LEU:HB2	1:A:404:PRO:HD3	1.82	0.62
1:A:408:ILE:HG22	1:A:408:ILE:O	1.99	0.62
1:A:35:VAL:O	1:A:39:MET:HB3	2.00	0.62
1:A:185:LYS:HA	1:A:189:PRO:HB3	1.82	0.62
1:A:273:VAL:HG22	1:A:274:VAL:N	2.15	0.62
1:B:144:TYR:O	1:B:147:PHE:N	2.32	0.62
1:B:277:HIS:CE1	1:B:281:LEU:HD13	2.35	0.62
1:B:380:SER:O	1:B:383:GLY:N	2.33	0.62
1:A:376:VAL:HG13	1:A:377:ALA:H	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:151:ARG:HG3	1:B:152:SER:N	2.15	0.61
1:B:344:ALA:O	1:B:346:LEU:N	2.30	0.61
1:A:50:ALA:O	1:A:53:ILE:HG13	1.98	0.61
1:A:284:SER:HA	1:A:287:VAL:CG2	2.29	0.61
1:B:52:SER:HB3	1:B:123:GLU:HG2	1.80	0.61
1:B:70:MET:HE1	1:B:95:GLY:O	2.00	0.61
1:B:274:VAL:O	1:B:278:GLN:HB2	2.00	0.61
1:B:279:VAL:HG11	1:B:360:LEU:CB	2.30	0.61
1:B:398:TYR:CB	1:B:436:ALA:HB2	2.29	0.61
1:B:400:VAL:HG12	1:B:401:LEU:N	2.15	0.61
1:A:286:LEU:O	1:A:289:MET:HB3	1.99	0.61
1:B:34:PHE:CD1	1:B:34:PHE:C	2.74	0.61
1:B:76:VAL:O	1:B:76:VAL:HG22	2.00	0.61
1:B:81:GLY:O	1:B:308:GLU:HA	2.01	0.61
1:B:148:GLN:CA	1:B:152:SER:HB3	2.28	0.61
1:B:286:LEU:O	1:B:289:MET:HB3	2.00	0.61
1:B:369:CYS:SG	1:B:370:MET:N	2.72	0.61
1:B:385:LYS:CB	1:B:387:MET:SD	2.86	0.61
1:A:91:GLU:OE1	1:A:91:GLU:HA	1.99	0.61
1:A:211:LEU:O	1:A:215:ILE:HG22	2.00	0.61
1:A:215:ILE:CG2	1:A:216:VAL:N	2.63	0.61
1:A:398:TYR:HB2	1:A:436:ALA:HB2	1.81	0.61
1:B:360:LEU:CD2	1:B:423:LYS:HB2	2.29	0.61
1:B:399:TRP:O	1:B:404:PRO:HD2	2.00	0.61
1:A:59:LEU:C	1:A:61:SER:N	2.54	0.61
1:A:185:LYS:HA	1:A:189:PRO:HD3	1.81	0.61
1:A:412:THR:HG23	1:A:416:THR:HB	1.83	0.61
1:B:266:VAL:CA	1:B:268:PRO:HD2	2.31	0.61
1:A:65:GLY:C	1:A:67:GLY:H	2.04	0.61
1:A:347:TYR:HB3	1:A:349:GLU:CD	2.20	0.61
1:A:74:PRO:HG2	1:A:146:LEU:HD23	1.81	0.61
1:A:447:LEU:HD13	1:A:450:GLN:HE21	1.62	0.61
1:B:53:ILE:HG21	1:B:196:CYS:SG	2.41	0.61
1:B:107:ILE:HA	1:B:139:PHE:CE2	2.35	0.61
1:B:373:VAL:HG13	1:B:374:GLN:N	2.14	0.61
1:B:439:MET:HA	1:B:439:MET:CE	2.30	0.61
1:B:446:TRP:HB3	1:B:447:LEU:HD12	1.81	0.61
1:A:126:MET:O	1:A:130:THR:HG23	2.01	0.61
1:A:371:ASP:OD1	1:A:375:VAL:HG23	2.01	0.61
1:A:403:LEU:O	1:A:407:TYR:CB	2.49	0.61
1:A:410:GLY:HA3	1:A:425:PHE:N	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:126:MET:CE	1:B:191:LEU:HD23	2.31	0.61
1:B:181:PHE:CG	1:B:198:VAL:HG11	2.35	0.61
1:A:69:LEU:HA	1:A:248:VAL:HG23	1.81	0.61
1:A:131:VAL:HA	1:A:135:HIS:CD2	2.36	0.61
1:A:151:ARG:HH21	1:A:162:PRO:HD3	1.66	0.61
1:B:68:LEU:HD13	1:B:71:ALA:CB	2.26	0.61
1:B:203:VAL:O	1:B:207:MET:CG	2.46	0.61
1:A:18:LEU:C	1:A:21:PRO:HD2	2.21	0.61
1:A:439:MET:HA	1:A:439:MET:CE	2.31	0.61
1:A:14:ASN:HA	1:A:17:LYS:HD2	1.83	0.60
1:A:53:ILE:C	1:A:56:SER:HB3	2.21	0.60
1:A:232:LYS:N	1:A:235:PRO:HD2	2.15	0.60
1:A:234:GLN:O	1:A:238:LEU:HD13	2.00	0.60
1:A:273:VAL:HG13	1:A:274:VAL:N	2.07	0.60
1:B:70:MET:O	1:B:73:VAL:N	2.34	0.60
1:B:200:THR:HA	1:B:203:VAL:HG23	1.82	0.60
1:B:353:VAL:CG1	1:B:357:ALA:HB2	2.30	0.60
1:A:164:MET:SD	1:A:164:MET:N	2.74	0.60
1:A:350:ASN:OD1	1:A:352:VAL:HB	2.01	0.60
1:A:22:VAL:HG23	1:A:293:SER:HB3	1.81	0.60
1:A:63:LEU:C	1:A:65:GLY:N	2.54	0.60
1:A:86:HIS:CG	1:A:87:LYS:N	2.69	0.60
1:A:144:TYR:CE1	1:A:148:GLN:HB2	2.36	0.60
1:A:360:LEU:CD2	1:A:423:LYS:HB2	2.31	0.60
1:A:444:LEU:O	1:A:446:TRP:N	2.29	0.60
1:A:66:VAL:HA	1:A:249:ALA:HB1	1.82	0.60
1:A:299:SER:N	1:A:380:SER:OG	2.35	0.60
1:A:398:TYR:CB	1:A:436:ALA:HB2	2.32	0.60
1:B:128:THR:HG22	1:B:129:LYS:H	1.64	0.60
1:B:130:THR:HG21	1:B:194:VAL:HG22	1.83	0.60
1:B:237:GLU:O	1:B:240:ARG:HB3	2.01	0.60
1:B:360:LEU:HD23	1:B:423:LYS:HB2	1.83	0.60
1:B:375:VAL:HG12	1:B:376:VAL:N	2.17	0.60
1:B:394:THR:HG23	1:B:439:MET:SD	2.41	0.60
1:A:455:GLN:HA	1:A:455:GLN:NE2	2.16	0.60
1:B:59:LEU:O	1:B:61:SER:N	2.35	0.60
1:B:384:TYR:CD1	1:B:384:TYR:C	2.74	0.60
1:A:77:ALA:HB2	1:A:154:THR:OG1	2.01	0.60
1:A:191:LEU:O	1:A:194:VAL:HB	2.02	0.60
1:A:271:SER:C	1:A:273:VAL:N	2.54	0.60
1:A:330:CYS:O	1:A:334:LEU:HD13	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:72:LEU:CA	1:B:75:VAL:HG13	2.30	0.60
1:B:275:ALA:CA	1:B:353:VAL:CG1	2.75	0.60
1:B:276:ALA:HA	1:B:360:LEU:HD13	1.82	0.60
1:A:18:LEU:HD13	1:A:300:ILE:CD1	2.31	0.60
1:A:130:THR:CG2	1:A:194:VAL:HG22	2.31	0.60
1:A:185:LYS:HA	1:A:189:PRO:CD	2.32	0.60
1:A:224:VAL:HG23	1:A:225:LYS:N	2.17	0.60
1:A:237:GLU:O	1:A:240:ARG:HB3	2.02	0.60
1:B:114:GLN:O	1:B:128:THR:HG21	2.02	0.60
1:B:384:TYR:C	1:B:384:TYR:HD1	2.03	0.60
1:B:399:TRP:CZ3	1:B:400:VAL:HG23	2.37	0.60
1:B:408:ILE:O	1:B:408:ILE:HG22	2.02	0.60
1:A:78:GLN:C	1:A:80:ASN:H	2.05	0.60
1:A:312:LYS:HA	1:A:312:LYS:HZ2	1.67	0.60
1:A:353:VAL:C	1:A:357:ALA:H	2.05	0.60
1:A:411:MET:HA	1:A:414:TRP:CD2	2.37	0.60
1:B:130:THR:HG22	1:B:194:VAL:HG22	1.83	0.60
1:B:150:LEU:C	1:B:154:THR:HB	2.22	0.60
1:B:373:VAL:HG13	1:B:437:ALA:CB	2.32	0.60
1:B:391:PHE:C	1:B:391:PHE:CD2	2.75	0.60
1:A:38:ILE:HG23	1:A:39:MET:H	1.66	0.60
1:A:66:VAL:HA	1:A:249:ALA:CB	2.31	0.60
1:A:298:VAL:HG11	1:A:381:LEU:CD2	2.31	0.60
1:B:65:GLY:C	1:B:67:GLY:H	2.02	0.60
1:B:200:THR:HA	1:B:203:VAL:HB	1.84	0.60
1:A:2:GLU:N	1:A:5:VAL:HG21	2.17	0.60
1:A:222:ALA:HA	1:A:224:VAL:HG13	1.84	0.60
1:B:11:GLU:OE2	1:B:320:VAL:HB	2.02	0.60
1:B:145:LEU:CD1	1:B:148:GLN:NE2	2.64	0.60
1:B:248:VAL:CG2	1:B:249:ALA:N	2.65	0.60
1:B:320:VAL:CG1	1:B:321:GLY:N	2.65	0.60
1:A:21:PRO:O	1:A:163:ALA:HB1	2.02	0.59
1:A:174:ASN:HB3	1:A:178:ASN:ND2	2.16	0.59
1:B:15:LEU:HD12	1:B:16:ILE:CA	2.32	0.59
1:B:27:VAL:O	1:B:31:GLY:HA3	2.02	0.59
1:B:166:ILE:HB	1:B:210:LEU:HG	1.83	0.59
1:B:411:MET:HA	1:B:414:TRP:CD2	2.37	0.59
1:A:259:PHE:HE1	1:A:429:PHE:CE2	2.20	0.59
1:B:151:ARG:O	1:B:155:ASP:N	2.35	0.59
1:B:340:ARG:HG3	1:B:341:GLU:N	2.10	0.59
1:B:386:ASP:OD1	1:B:456:LEU:HD22	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:445:TYR:O	1:B:446:TRP:C	2.39	0.59
1:A:10:LYS:HG3	1:A:301:ARG:HH21	1.67	0.59
1:A:352:VAL:O	1:A:353:VAL:C	2.39	0.59
1:B:63:LEU:C	1:B:65:GLY:N	2.54	0.59
1:B:298:VAL:O	1:B:301:ARG:N	2.36	0.59
1:B:365:ALA:O	1:B:368:GLN:HB2	2.02	0.59
1:A:93:HIS:HE1	1:A:225:LYS:HB3	1.68	0.59
1:A:274:VAL:HG13	1:A:278:GLN:NE2	2.17	0.59
1:A:384:TYR:O	1:A:385:LYS:HB2	2.02	0.59
1:B:272:THR:HA	1:B:275:ALA:HB2	1.84	0.59
1:B:363:PHE:CE2	1:B:426:TRP:HB3	2.38	0.59
1:A:181:PHE:CG	1:A:198:VAL:HG11	2.38	0.59
1:A:208:LEU:HD23	1:A:208:LEU:C	2.23	0.59
1:A:373:VAL:HG13	1:A:437:ALA:CB	2.32	0.59
1:B:63:LEU:O	1:B:65:GLY:N	2.34	0.59
1:B:151:ARG:HH21	1:B:162:PRO:HD3	1.67	0.59
1:B:447:LEU:O	1:B:448:GLN:HB2	2.01	0.59
1:A:81:GLY:C	1:A:83:GLY:N	2.56	0.59
1:B:182:VAL:CG1	1:B:192:GLY:HA2	2.33	0.59
1:A:84:ARG:HG2	1:A:87:LYS:NZ	2.18	0.59
1:A:320:VAL:CG1	1:A:321:GLY:H	2.14	0.59
1:A:352:VAL:O	1:A:354:VAL:HB	2.02	0.59
1:A:444:LEU:O	1:A:445:TYR:HB2	2.01	0.59
1:B:39:MET:SD	1:B:40:ALA:N	2.76	0.59
1:B:109:VAL:O	1:B:113:THR:HG22	2.02	0.59
1:B:151:ARG:HH12	1:B:219:LYS:HZ3	1.49	0.59
1:B:235:PRO:HA	1:B:238:LEU:CG	2.32	0.59
1:B:238:LEU:HD12	1:B:241:LEU:HD22	1.83	0.59
1:B:245:GLY:CA	1:B:248:VAL:HG22	2.32	0.59
1:B:266:VAL:HG22	1:B:407:TYR:CE2	2.37	0.59
1:B:299:SER:N	1:B:380:SER:OG	2.36	0.59
1:B:326:LEU:O	1:B:330:CYS:HB2	2.02	0.59
1:B:367:TYR:HA	1:B:430:ILE:CD1	2.33	0.59
1:A:236:LYS:HA	1:A:239:ILE:CD1	2.32	0.59
1:A:451:SER:O	1:A:454:VAL:HG12	2.02	0.59
1:B:329:ALA:CB	1:B:369:CYS:HA	2.33	0.59
1:B:356:LEU:O	1:B:359:GLN:HB2	2.01	0.59
1:B:445:TYR:O	1:B:448:GLN:O	2.21	0.59
1:A:10:LYS:CE	1:A:14:ASN:HD21	2.13	0.59
1:A:238:LEU:CA	1:A:241:LEU:HB2	2.33	0.59
1:A:392:HIS:O	1:A:395:PHE:CB	2.51	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:29:GLN:HA	1:B:32:MET:HE1	1.85	0.59
1:B:378:ALA:O	1:B:380:SER:N	2.36	0.59
1:A:57:ILE:C	1:A:60:PRO:HD2	2.23	0.59
1:A:320:VAL:CG1	1:A:321:GLY:N	2.66	0.59
1:A:360:LEU:HD23	1:A:423:LYS:HB2	1.85	0.59
1:B:38:ILE:HG23	1:B:39:MET:N	2.17	0.59
1:B:305:LYS:HG2	1:B:316:ILE:HD12	1.83	0.59
1:B:367:TYR:HB2	1:B:430:ILE:HD11	1.85	0.59
1:A:92:VAL:O	1:A:95:GLY:N	2.36	0.58
1:A:109:VAL:O	1:A:113:THR:HG22	2.02	0.58
1:A:212:LEU:HD12	1:A:216:VAL:CG2	2.33	0.58
1:A:230:PHE:O	1:A:231:HIS:CB	2.51	0.58
1:B:200:THR:HA	1:B:203:VAL:CB	2.32	0.58
1:B:236:LYS:HA	1:B:239:ILE:CB	2.32	0.58
1:B:331:ILE:HG22	1:B:332:THR:N	2.17	0.58
1:A:275:ALA:O	1:A:279:VAL:CG2	2.51	0.58
1:A:155:ASP:O	1:A:158:SER:N	2.36	0.58
1:A:266:VAL:HA	1:A:268:PRO:HD2	1.85	0.58
1:A:400:VAL:HG12	1:A:401:LEU:N	2.18	0.58
1:B:144:TYR:CE1	1:B:148:GLN:HB2	2.39	0.58
1:B:230:PHE:CG	1:B:231:HIS:N	2.70	0.58
1:B:402:GLY:O	1:B:405:THR:N	2.34	0.58
1:A:65:GLY:C	1:A:67:GLY:N	2.57	0.58
1:A:150:LEU:C	1:A:154:THR:HB	2.23	0.58
1:A:370:MET:HG3	1:A:433:LEU:HB3	1.85	0.58
1:A:398:TYR:CD1	1:A:399:TRP:N	2.72	0.58
1:A:455:GLN:CA	1:A:455:GLN:HE21	2.14	0.58
1:B:96:LEU:O	1:B:96:LEU:HD23	2.02	0.58
1:B:208:LEU:HD23	1:B:208:LEU:C	2.24	0.58
1:B:230:PHE:O	1:B:231:HIS:HB2	2.02	0.58
1:B:234:GLN:O	1:B:238:LEU:HD13	2.03	0.58
1:A:155:ASP:OD2	1:A:160:THR:HA	2.04	0.58
1:A:388:THR:HA	1:A:391:PHE:CD1	2.39	0.58
1:A:389:ALA:O	1:A:392:HIS:HB3	2.03	0.58
1:B:222:ALA:HA	1:B:224:VAL:HG13	1.84	0.58
1:B:353:VAL:HG12	1:B:357:ALA:HB2	1.84	0.58
1:B:413:ASN:C	1:B:415:LEU:N	2.56	0.58
1:A:11:GLU:OE2	1:A:320:VAL:HB	2.03	0.58
1:A:144:TYR:CD1	1:A:145:LEU:N	2.71	0.58
1:B:188:ALA:HB1	1:B:190:GLU:OE1	2.04	0.58
1:A:80:ASN:OD1	1:A:157:MET:HA	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:244:LEU:O	1:A:244:LEU:HD22	2.03	0.58
1:A:275:ALA:CA	1:A:353:VAL:HG21	2.34	0.58
1:A:298:VAL:O	1:A:301:ARG:N	2.37	0.58
1:A:398:TYR:CE2	1:A:433:LEU:HD12	2.38	0.58
1:B:10:LYS:HE3	1:B:14:ASN:ND2	2.15	0.58
1:B:11:GLU:CG	1:B:320:VAL:HB	2.33	0.58
1:B:235:PRO:C	1:B:238:LEU:H	2.07	0.58
1:B:298:VAL:HG11	1:B:381:LEU:CD2	2.33	0.58
1:A:235:PRO:CB	1:A:238:LEU:HD22	2.33	0.58
1:A:305:LYS:HG2	1:A:316:ILE:HD12	1.84	0.58
1:A:340:ARG:HG3	1:A:341:GLU:N	2.12	0.58
1:B:68:LEU:HA	1:B:71:ALA:HB3	1.84	0.58
1:B:154:THR:HG22	1:B:155:ASP:N	2.18	0.58
1:B:174:ASN:HD21	1:B:203:VAL:HG22	1.69	0.58
1:A:5:VAL:HA	1:A:8:TYR:CE2	2.38	0.58
1:A:238:LEU:HD12	1:A:241:LEU:HD22	1.86	0.58
1:B:69:LEU:HG	1:B:245:GLY:HA3	1.86	0.58
1:B:74:PRO:HG2	1:B:146:LEU:HD23	1.86	0.58
1:B:219:LYS:HD2	1:B:220:ARG:HG2	1.86	0.58
1:B:257:THR:O	1:B:261:VAL:HG23	2.04	0.58
1:A:115:PHE:HD1	1:A:129:LYS:HD3	1.69	0.58
1:A:237:GLU:HA	1:A:240:ARG:HB2	1.84	0.58
1:B:273:VAL:HG13	1:B:274:VAL:N	2.15	0.58
1:A:80:ASN:C	1:A:82:ALA:N	2.55	0.57
1:A:144:TYR:O	1:A:147:PHE:N	2.37	0.57
1:A:232:LYS:H	1:A:233:PRO:CD	2.16	0.57
1:A:399:TRP:O	1:A:404:PRO:HD2	2.04	0.57
1:B:232:LYS:N	1:B:235:PRO:HD2	2.18	0.57
1:A:166:ILE:HB	1:A:210:LEU:HG	1.86	0.57
1:A:236:LYS:C	1:A:239:ILE:HB	2.24	0.57
1:A:279:VAL:HG11	1:A:360:LEU:HB3	1.86	0.57
1:A:367:TYR:HB2	1:A:430:ILE:HD11	1.86	0.57
1:B:200:THR:O	1:B:203:VAL:HB	2.04	0.57
1:B:305:LYS:HG3	1:B:311:THR:CG2	2.34	0.57
1:A:168:PHE:O	1:A:171:LEU:HD23	2.04	0.57
1:A:429:PHE:O	1:A:429:PHE:HD1	1.87	0.57
1:B:3:ASN:C	1:B:5:VAL:H	2.07	0.57
1:B:281:LEU:HD23	1:B:281:LEU:C	2.23	0.57
1:A:110:LEU:HD13	1:A:111:PHE:N	2.18	0.57
1:B:59:LEU:C	1:B:61:SER:N	2.56	0.57
1:B:93:HIS:CE1	1:B:225:LYS:HB2	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:351:GLN:O	1:B:352:VAL:O	2.23	0.57
1:A:174:ASN:O	1:A:178:ASN:N	2.38	0.57
1:A:344:ALA:C	1:A:346:LEU:N	2.58	0.57
1:A:382:ARG:HH21	1:A:445:TYR:H	1.53	0.57
1:B:42:GLY:HA2	1:B:50:ALA:H	1.67	0.57
1:B:171:LEU:O	1:B:174:ASN:HB2	2.04	0.57
1:B:324:THR:O	1:B:325:GLY:C	2.43	0.57
1:B:405:THR:O	1:B:409:LEU:HB2	2.03	0.57
1:A:126:MET:CE	1:A:191:LEU:HD23	2.35	0.57
1:A:230:PHE:CG	1:A:231:HIS:N	2.72	0.57
1:B:29:GLN:O	1:B:32:MET:HE2	2.03	0.57
1:A:75:VAL:C	1:A:77:ALA:H	2.07	0.57
1:A:185:LYS:O	1:A:186:PHE:C	2.42	0.57
1:A:257:THR:O	1:A:261:VAL:HG23	2.05	0.57
1:B:5:VAL:HG23	1:B:6:HIS:H	1.70	0.57
1:B:65:GLY:C	1:B:67:GLY:N	2.56	0.57
1:B:73:VAL:HB	1:B:74:PRO:CD	2.27	0.57
1:B:131:VAL:HA	1:B:135:HIS:CD2	2.40	0.57
1:B:144:TYR:CD1	1:B:145:LEU:N	2.73	0.57
1:B:204:TYR:CA	1:B:207:MET:HB2	2.23	0.57
1:B:351:GLN:O	1:B:354:VAL:HB	2.05	0.57
1:B:394:THR:HG22	1:B:439:MET:HB3	1.80	0.57
1:A:343:ILE:O	1:A:346:LEU:HB2	2.04	0.57
1:A:408:ILE:C	1:A:411:MET:HB2	2.24	0.57
1:B:74:PRO:HA	1:B:76:VAL:HG12	1.87	0.57
1:B:429:PHE:O	1:B:429:PHE:HD1	1.88	0.57
1:A:394:THR:HG23	1:A:439:MET:SD	2.45	0.57
1:B:10:LYS:HE2	1:B:305:LYS:NZ	2.19	0.57
1:B:93:HIS:NE2	1:B:225:LYS:HB2	2.19	0.57
1:B:235:PRO:HA	1:B:238:LEU:CD1	2.34	0.57
1:B:245:GLY:HA2	1:B:248:VAL:CG2	2.34	0.57
1:B:367:TYR:CA	1:B:430:ILE:HD11	2.35	0.57
1:A:107:ILE:HG12	1:A:139:PHE:CD2	2.39	0.57
1:A:128:THR:HG22	1:A:129:LYS:H	1.69	0.57
1:A:203:VAL:O	1:A:206:ILE:HG12	2.04	0.57
1:A:376:VAL:O	1:A:380:SER:HB3	2.05	0.57
1:A:445:TYR:CG	1:A:448:GLN:HA	2.40	0.57
1:B:150:LEU:O	1:B:150:LEU:HD12	2.05	0.57
1:B:403:LEU:O	1:B:407:TYR:CB	2.53	0.57
1:A:86:HIS:CG	1:A:87:LYS:H	2.23	0.56
1:A:155:ASP:CB	1:A:159:LEU:N	2.49	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:259:PHE:CE1	1:A:429:PHE:CE2	2.93	0.56
1:A:329:ALA:O	1:A:333:ALA:HB2	2.05	0.56
1:B:4:SER:HA	1:B:7:ARG:CB	2.22	0.56
1:B:235:PRO:HB3	1:B:238:LEU:HD22	1.87	0.56
1:B:335:LEU:HD12	1:B:335:LEU:O	2.05	0.56
1:A:38:ILE:HG13	1:A:50:ALA:HB1	1.87	0.56
1:A:81:GLY:HA3	1:A:307:GLY:C	2.26	0.56
1:A:88:ILE:HG12	1:A:89:PRO:CD	2.31	0.56
1:A:188:ALA:HB1	1:A:190:GLU:OE1	2.05	0.56
1:A:324:THR:O	1:A:325:GLY:C	2.43	0.56
1:A:350:ASN:HD21	1:A:352:VAL:N	2.02	0.56
1:B:10:LYS:O	1:B:11:GLU:C	2.42	0.56
1:B:23:LEU:O	1:B:27:VAL:HG23	2.05	0.56
1:B:168:PHE:O	1:B:171:LEU:HD23	2.05	0.56
1:B:195:GLY:O	1:B:199:ALA:N	2.38	0.56
1:B:209:LEU:HD13	1:B:210:LEU:N	2.20	0.56
1:B:314:ALA:HB1	1:B:445:TYR:CZ	2.40	0.56
1:B:376:VAL:O	1:B:380:SER:HB3	2.04	0.56
1:B:412:THR:HG23	1:B:416:THR:HB	1.85	0.56
1:A:107:ILE:HA	1:A:139:PHE:CE2	2.38	0.56
1:A:146:LEU:O	1:A:149:ALA:N	2.39	0.56
1:A:146:LEU:O	1:A:147:PHE:C	2.43	0.56
1:A:178:ASN:OD1	1:A:199:ALA:HA	2.05	0.56
1:A:287:VAL:O	1:A:290:PHE:HB2	2.05	0.56
1:A:391:PHE:C	1:A:391:PHE:CD2	2.79	0.56
1:A:447:LEU:HD21	1:A:452:ASP:OD1	2.05	0.56
1:B:5:VAL:HA	1:B:8:TYR:CE2	2.40	0.56
1:B:174:ASN:HB3	1:B:178:ASN:ND2	2.20	0.56
1:B:185:LYS:HA	1:B:189:PRO:HB3	1.86	0.56
1:B:420:LEU:HB3	1:B:423:LYS:HD3	1.86	0.56
1:A:24:ILE:HG22	1:A:25:ALA:N	2.19	0.56
1:A:140:ALA:CB	1:A:204:TYR:CE2	2.88	0.56
1:B:70:MET:O	1:B:73:VAL:HB	2.06	0.56
1:B:284:SER:HA	1:B:287:VAL:CG2	2.35	0.56
1:B:344:ALA:C	1:B:346:LEU:N	2.59	0.56
1:B:410:GLY:HA3	1:B:425:PHE:N	2.20	0.56
1:A:102:VAL:O	1:A:105:PRO:HD2	2.06	0.56
1:A:234:GLN:O	1:A:237:GLU:CB	2.52	0.56
1:A:266:VAL:HG22	1:A:407:TYR:CE2	2.39	0.56
1:A:374:GLN:O	1:A:378:ALA:HB3	2.05	0.56
1:B:107:ILE:HG12	1:B:139:PHE:CE2	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:149:ALA:O	1:B:154:THR:N	2.24	0.56
1:B:301:ARG:HH22	1:B:316:ILE:HG22	1.71	0.56
1:A:72:LEU:HD12	1:A:244:LEU:HD21	1.88	0.56
1:A:144:TYR:OH	1:A:166:ILE:HG21	2.05	0.56
1:A:252:LEU:O	1:A:255:GLU:HB3	2.06	0.56
1:A:447:LEU:N	1:A:447:LEU:HD12	2.21	0.56
1:B:15:LEU:HG	1:B:16:ILE:H	1.71	0.56
1:B:69:LEU:C	1:B:69:LEU:HD23	2.25	0.56
1:A:76:VAL:O	1:A:76:VAL:HG22	2.06	0.56
1:A:178:ASN:OD1	1:A:199:ALA:CB	2.54	0.56
1:B:24:ILE:HG22	1:B:25:ALA:N	2.20	0.56
1:B:72:LEU:HG	1:B:244:LEU:HD21	1.86	0.56
1:B:155:ASP:O	1:B:158:SER:N	2.39	0.56
1:B:185:LYS:CA	1:B:189:PRO:HB3	2.36	0.56
1:B:235:PRO:CG	1:B:238:LEU:HD22	2.36	0.56
1:B:299:SER:HB2	1:B:380:SER:HA	1.88	0.56
1:B:403:LEU:HB2	1:B:404:PRO:HD3	1.88	0.56
1:A:15:LEU:HD12	1:A:16:ILE:CA	2.35	0.56
1:A:69:LEU:HD13	1:A:102:VAL:HG21	1.88	0.56
1:A:96:LEU:HD23	1:A:99:ALA:HB3	1.88	0.56
1:A:235:PRO:C	1:A:238:LEU:H	2.09	0.56
1:A:340:ARG:O	1:A:343:ILE:HB	2.05	0.56
1:A:366:ILE:HG22	1:A:430:ILE:HD12	1.88	0.56
1:B:11:GLU:CD	1:B:320:VAL:HB	2.25	0.56
1:B:65:GLY:CA	1:B:253:PHE:CG	2.87	0.56
1:B:211:LEU:O	1:B:215:ILE:HG22	2.05	0.56
1:A:72:LEU:CG	1:A:244:LEU:HD21	2.36	0.56
1:B:275:ALA:CA	1:B:353:VAL:CG2	2.82	0.56
1:B:305:LYS:HG3	1:B:311:THR:HG23	1.87	0.56
1:A:72:LEU:CD1	1:A:244:LEU:HD21	2.36	0.56
1:A:163:ALA:HB3	1:A:164:MET:SD	2.45	0.56
1:A:168:PHE:O	1:A:172:LEU:HB2	2.05	0.56
1:A:174:ASN:C	1:A:178:ASN:ND2	2.59	0.56
1:A:185:LYS:CA	1:A:189:PRO:HB3	2.36	0.56
1:A:301:ARG:HH22	1:A:316:ILE:HG22	1.69	0.56
1:B:86:HIS:CG	1:B:87:LYS:N	2.74	0.56
1:A:70:MET:O	1:A:73:VAL:N	2.39	0.55
1:A:96:LEU:O	1:A:99:ALA:CB	2.52	0.55
1:B:22:VAL:CG2	1:B:23:LEU:H	2.15	0.55
1:B:91:GLU:OE1	1:B:91:GLU:HA	2.04	0.55
1:B:162:PRO:HA	1:B:165:VAL:HG11	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:161:LYS:HD3	1:A:214:TYR:OH	2.06	0.55
1:B:53:ILE:C	1:B:56:SER:HB3	2.25	0.55
1:B:96:LEU:O	1:B:99:ALA:CB	2.54	0.55
1:A:178:ASN:OD1	1:A:199:ALA:HB2	2.06	0.55
1:A:180:ILE:HA	1:A:184:GLY:HA3	1.88	0.55
1:B:15:LEU:CG	1:B:16:ILE:N	2.70	0.55
1:A:262:VAL:CG2	1:A:403:LEU:HB3	2.28	0.55
1:A:274:VAL:O	1:A:278:GLN:HB2	2.06	0.55
1:A:384:TYR:CD1	1:A:384:TYR:C	2.79	0.55
1:B:80:ASN:C	1:B:82:ALA:N	2.59	0.55
1:B:127:ALA:O	1:B:131:VAL:HG22	2.05	0.55
1:B:413:ASN:ND2	1:B:414:TRP:CE3	2.75	0.55
1:A:49:ALA:O	1:A:52:SER:HB2	2.06	0.55
1:A:154:THR:HG22	1:A:155:ASP:N	2.21	0.55
1:A:182:VAL:CG1	1:A:192:GLY:HA2	2.36	0.55
1:A:235:PRO:HG3	1:A:238:LEU:HD22	1.89	0.55
1:A:455:GLN:NE2	1:A:455:GLN:CA	2.67	0.55
1:B:148:GLN:HA	1:B:152:SER:CB	2.35	0.55
1:B:455:GLN:CA	1:B:455:GLN:HE21	2.19	0.55
1:A:59:LEU:N	1:A:59:LEU:CD1	2.70	0.55
1:A:245:GLY:CA	1:A:248:VAL:HG22	2.34	0.55
1:A:329:ALA:CB	1:A:369:CYS:HA	2.36	0.55
1:A:331:ILE:HG22	1:A:332:THR:N	2.21	0.55
1:A:351:GLN:O	1:A:354:VAL:CG2	2.54	0.55
1:A:394:THR:HG22	1:A:439:MET:HB3	1.85	0.55
1:A:400:VAL:HG12	1:A:401:LEU:H	1.71	0.55
1:A:410:GLY:HA3	1:A:425:PHE:CA	2.36	0.55
1:B:185:LYS:O	1:B:186:PHE:C	2.44	0.55
1:B:354:VAL:HG12	1:B:355:ALA:N	2.21	0.55
1:B:443:ARG:HD3	1:B:443:ARG:C	2.27	0.55
1:A:9:LYS:O	1:A:12:ALA:HB3	2.06	0.55
1:A:403:LEU:HD21	1:A:429:PHE:CE2	2.41	0.55
1:B:9:LYS:O	1:B:12:ALA:HB3	2.07	0.55
1:B:49:ALA:O	1:B:52:SER:HB2	2.07	0.55
1:B:165:VAL:CG1	1:B:166:ILE:N	2.35	0.55
1:B:180:ILE:HG23	1:B:181:PHE:CD1	2.39	0.55
1:B:455:GLN:NE2	1:B:455:GLN:HA	2.21	0.55
1:A:10:LYS:HE2	1:A:305:LYS:HZ2	1.72	0.55
1:B:10:LYS:CG	1:B:301:ARG:HH21	2.20	0.55
1:B:85:GLN:O	1:B:88:ILE:HG23	2.07	0.55
1:B:89:PRO:O	1:B:93:HIS:ND1	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:166:ILE:HB	1:B:210:LEU:CG	2.37	0.55
1:B:360:LEU:HD21	1:B:423:LYS:CB	2.37	0.55
1:B:165:VAL:C	1:B:167:GLY:N	2.59	0.55
1:B:237:GLU:C	1:B:240:ARG:H	2.11	0.55
1:B:398:TYR:CE2	1:B:433:LEU:HD12	2.40	0.55
1:B:398:TYR:CD1	1:B:399:TRP:N	2.75	0.55
1:A:447:LEU:HD12	1:A:448:GLN:O	2.07	0.55
1:B:88:ILE:HG12	1:B:89:PRO:CD	2.36	0.55
1:B:123:GLU:O	1:B:126:MET:HB2	2.06	0.55
1:B:239:ILE:HA	1:B:242:PHE:HB3	1.87	0.55
1:B:373:VAL:HG13	1:B:437:ALA:HB1	1.88	0.55
1:B:443:ARG:O	1:B:443:ARG:CD	2.54	0.55
1:B:139:PHE:O	1:B:142:PRO:HD2	2.06	0.54
1:B:165:VAL:C	1:B:167:GLY:H	2.09	0.54
1:A:11:GLU:CG	1:A:320:VAL:HB	2.36	0.54
1:A:114:GLN:O	1:A:128:THR:HG21	2.07	0.54
1:A:443:ARG:O	1:A:443:ARG:HD3	2.07	0.54
1:B:271:SER:O	1:B:273:VAL:N	2.40	0.54
1:B:455:GLN:CA	1:B:455:GLN:NE2	2.70	0.54
1:A:69:LEU:HD23	1:A:69:LEU:C	2.28	0.54
1:A:110:LEU:HD11	1:A:132:GLY:O	2.07	0.54
1:A:413:ASN:HB2	1:A:418:GLN:CB	2.37	0.54
1:B:77:ALA:HB2	1:B:154:THR:OG1	2.07	0.54
1:B:161:LYS:C	1:B:163:ALA:H	2.10	0.54
1:B:323:MET:O	1:B:326:LEU:HB3	2.06	0.54
1:B:384:TYR:O	1:B:385:LYS:HB2	2.06	0.54
1:A:394:THR:HG23	1:A:439:MET:HB3	1.86	0.54
1:A:446:TRP:O	1:A:446:TRP:CG	2.59	0.54
1:A:454:VAL:O	1:A:458:LEU:HB2	2.07	0.54
1:B:224:VAL:HG23	1:B:225:LYS:N	2.22	0.54
1:B:237:GLU:HA	1:B:240:ARG:CB	2.36	0.54
1:A:10:LYS:O	1:A:11:GLU:C	2.44	0.54
1:A:68:LEU:HA	1:A:71:ALA:HB3	1.88	0.54
1:A:245:GLY:HA2	1:A:248:VAL:CG2	2.35	0.54
1:B:14:ASN:HB3	1:B:301:ARG:HG2	1.90	0.54
1:B:165:VAL:HG13	1:B:166:ILE:HG22	1.87	0.54
1:B:356:LEU:HD21	1:B:420:LEU:HG	1.89	0.54
1:A:21:PRO:HB3	1:A:160:THR:O	2.08	0.54
1:A:165:VAL:C	1:A:167:GLY:H	2.11	0.54
1:A:234:GLN:N	1:A:235:PRO:CD	2.69	0.54
1:A:276:ALA:CA	1:A:360:LEU:HD13	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:328:THR:O	1:A:331:ILE:N	2.40	0.54
1:B:162:PRO:HA	1:B:165:VAL:HG12	1.89	0.54
1:B:206:ILE:CG1	1:B:207:MET:N	2.69	0.54
1:B:230:PHE:O	1:B:231:HIS:CB	2.56	0.54
1:B:236:LYS:HA	1:B:239:ILE:CG1	2.38	0.54
1:B:454:VAL:O	1:B:458:LEU:HB2	2.08	0.54
1:A:11:GLU:O	1:A:15:LEU:HD23	2.07	0.54
1:A:70:MET:O	1:A:73:VAL:HB	2.07	0.54
1:A:108:ALA:O	1:A:109:VAL:C	2.45	0.54
1:A:151:ARG:CG	1:A:152:SER:N	2.70	0.54
1:A:184:GLY:O	1:A:185:LYS:C	2.46	0.54
1:A:203:VAL:O	1:A:207:MET:CG	2.53	0.54
1:A:326:LEU:O	1:A:330:CYS:HB2	2.07	0.54
1:A:427:LEU:O	1:A:430:ILE:HB	2.08	0.54
1:B:343:ILE:O	1:B:346:LEU:HB2	2.08	0.54
1:B:380:SER:O	1:B:381:LEU:C	2.45	0.54
1:A:148:GLN:CA	1:A:152:SER:HB3	2.35	0.54
1:A:206:ILE:HG13	1:A:207:MET:H	1.73	0.54
1:A:440:LEU:HD22	1:A:440:LEU:N	2.23	0.54
1:B:155:ASP:OD2	1:B:160:THR:HA	2.08	0.54
1:A:21:PRO:CB	1:A:160:THR:HG23	2.38	0.54
1:A:25:ALA:O	1:A:28:ALA:HB3	2.08	0.54
1:A:301:ARG:O	1:A:305:LYS:HB2	2.07	0.54
1:A:405:THR:O	1:A:409:LEU:N	2.41	0.54
1:B:22:VAL:HG23	1:B:293:SER:HB3	1.90	0.54
1:B:221:LEU:O	1:B:222:ALA:HB2	2.07	0.54
1:B:235:PRO:O	1:B:238:LEU:HB2	2.07	0.54
1:B:339:PHE:O	1:B:343:ILE:HG12	2.08	0.54
1:B:353:VAL:HG12	1:B:357:ALA:HA	1.86	0.54
1:B:423:LYS:HG2	1:B:424:GLY:N	2.23	0.54
1:B:436:ALA:O	1:B:439:MET:HB2	2.08	0.54
1:A:235:PRO:HA	1:A:238:LEU:CG	2.38	0.54
1:B:178:ASN:OD1	1:B:199:ALA:HB2	2.07	0.54
1:B:268:PRO:O	1:B:269:LEU:HD23	2.07	0.54
1:B:286:LEU:HD12	1:B:286:LEU:N	2.22	0.54
1:B:290:PHE:HB3	1:B:291:PRO:CD	2.38	0.54
1:B:353:VAL:HB	1:B:357:ALA:HB2	1.90	0.54
1:B:384:TYR:HE1	1:B:387:MET:HE1	1.72	0.54
1:B:450:GLN:O	1:B:453:ASP:OD1	2.26	0.54
1:A:94:GLN:NE2	1:A:231:HIS:HB2	2.22	0.53
1:A:218:SER:O	1:A:220:ARG:N	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:268:PRO:O	1:A:269:LEU:HD23	2.08	0.53
1:B:146:LEU:O	1:B:147:PHE:C	2.45	0.53
1:B:364:ALA:O	1:B:367:TYR:N	2.41	0.53
1:B:410:GLY:HA3	1:B:425:PHE:CA	2.38	0.53
1:A:14:ASN:HD22	1:A:14:ASN:H	1.56	0.53
1:A:162:PRO:HA	1:A:165:VAL:HG12	1.88	0.53
1:A:312:LYS:HA	1:A:312:LYS:NZ	2.23	0.53
1:A:339:PHE:O	1:A:343:ILE:CG1	2.56	0.53
1:A:356:LEU:HD12	1:A:359:GLN:HG3	1.90	0.53
1:B:78:GLN:C	1:B:80:ASN:N	2.61	0.53
1:B:234:GLN:O	1:B:237:GLU:CB	2.57	0.53
1:B:290:PHE:CB	1:B:291:PRO:CD	2.86	0.53
1:A:93:HIS:CE1	1:A:225:LYS:CB	2.91	0.53
1:A:142:PRO:HA	1:A:145:LEU:HB2	1.90	0.53
1:B:3:ASN:O	1:B:5:VAL:N	2.39	0.53
1:B:98:LEU:O	1:B:98:LEU:HD12	2.08	0.53
1:B:134:MET:SD	1:B:198:VAL:HG23	2.48	0.53
1:B:370:MET:HG3	1:B:433:LEU:HB3	1.91	0.53
1:A:14:ASN:O	1:A:17:LYS:HB2	2.08	0.53
1:A:145:LEU:O	1:A:148:GLN:HB3	2.07	0.53
1:A:200:THR:HA	1:A:203:VAL:HB	1.90	0.53
1:A:235:PRO:HA	1:A:238:LEU:CD1	2.38	0.53
1:B:21:PRO:O	1:B:163:ALA:HB1	2.09	0.53
1:B:46:ILE:C	1:B:48:MET:H	2.11	0.53
1:B:254:PHE:O	1:B:257:THR:HG22	2.09	0.53
1:B:287:VAL:O	1:B:290:PHE:HB2	2.08	0.53
1:B:75:VAL:C	1:B:77:ALA:H	2.12	0.53
1:B:203:VAL:O	1:B:206:ILE:HG12	2.09	0.53
1:B:239:ILE:O	1:B:239:ILE:HG22	2.08	0.53
1:B:400:VAL:HG12	1:B:401:LEU:H	1.72	0.53
1:B:403:LEU:HD11	1:B:429:PHE:CE2	2.43	0.53
1:A:46:ILE:C	1:A:48:MET:H	2.12	0.53
1:A:146:LEU:HD22	1:A:149:ALA:HB3	1.89	0.53
1:A:262:VAL:HG21	1:A:403:LEU:CB	2.30	0.53
1:A:413:ASN:ND2	1:A:414:TRP:CZ3	2.75	0.53
1:B:374:GLN:HA	1:B:437:ALA:HA	1.90	0.53
1:A:93:HIS:CE1	1:A:225:LYS:HB3	2.43	0.53
1:A:102:VAL:C	1:A:105:PRO:HD2	2.29	0.53
1:A:167:GLY:O	1:A:170:GLY:N	2.42	0.53
1:A:272:THR:HA	1:A:275:ALA:HB2	1.91	0.53
1:A:340:ARG:HA	1:A:361:LEU:HD22	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:232:LYS:H	1:B:233:PRO:CD	2.21	0.53
1:B:238:LEU:O	1:B:242:PHE:N	2.41	0.53
1:A:150:LEU:HA	1:A:154:THR:HB	1.90	0.53
1:A:218:SER:C	1:A:220:ARG:N	2.62	0.53
1:A:380:SER:O	1:A:383:GLY:N	2.41	0.53
1:A:413:ASN:HD22	1:A:414:TRP:HZ3	1.56	0.53
1:B:29:GLN:HA	1:B:32:MET:CE	2.38	0.53
1:B:209:LEU:CD1	1:B:210:LEU:HD13	2.38	0.53
1:B:234:GLN:N	1:B:235:PRO:CD	2.72	0.53
1:B:275:ALA:HA	1:B:353:VAL:CB	2.39	0.53
1:B:275:ALA:CB	1:B:353:VAL:CG1	2.86	0.53
1:A:11:GLU:CD	1:A:320:VAL:HB	2.28	0.53
1:A:275:ALA:CB	1:A:353:VAL:CG1	2.87	0.53
1:A:335:LEU:HD12	1:A:335:LEU:O	2.08	0.53
1:A:354:VAL:O	1:A:358:MET:HB2	2.09	0.53
1:A:384:TYR:C	1:A:384:TYR:HD1	2.11	0.53
1:B:38:ILE:HG13	1:B:50:ALA:HB1	1.91	0.53
1:B:178:ASN:OD1	1:B:199:ALA:CB	2.57	0.53
1:B:332:THR:HG22	1:B:335:LEU:HD23	1.90	0.53
1:B:376:VAL:O	1:B:377:ALA:C	2.47	0.53
1:A:2:GLU:N	1:A:5:VAL:CG2	2.72	0.53
1:A:170:GLY:HA2	1:A:206:ILE:CD1	2.39	0.53
1:A:276:ALA:CA	1:A:360:LEU:CD1	2.86	0.53
1:B:13:SER:C	1:B:17:LYS:HG3	2.29	0.53
1:B:53:ILE:CG2	1:B:196:CYS:SG	2.97	0.53
1:B:110:LEU:CD1	1:B:111:PHE:N	2.71	0.53
1:B:146:LEU:HD22	1:B:149:ALA:HB3	1.91	0.53
1:B:150:LEU:O	1:B:154:THR:CB	2.58	0.53
1:B:218:SER:C	1:B:220:ARG:N	2.62	0.53
1:B:366:ILE:HG22	1:B:430:ILE:CD1	2.38	0.53
1:B:382:ARG:NH2	1:B:445:TYR:H	2.07	0.53
1:A:131:VAL:O	1:A:135:HIS:HB2	2.08	0.52
1:A:144:TYR:CD2	1:A:207:MET:HB3	2.44	0.52
1:A:387:MET:O	1:A:391:PHE:HB3	2.08	0.52
1:B:72:LEU:HD12	1:B:244:LEU:HD21	1.91	0.52
1:B:106:ILE:HG22	1:B:139:PHE:CE1	2.39	0.52
1:B:142:PRO:HA	1:B:145:LEU:HB2	1.91	0.52
1:B:146:LEU:O	1:B:149:ALA:N	2.43	0.52
1:B:351:GLN:HE21	1:B:355:ALA:N	2.06	0.52
1:B:370:MET:O	1:B:373:VAL:HG12	2.09	0.52
1:B:400:VAL:O	1:B:404:PRO:HB2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:106:ILE:HG22	1:A:139:PHE:CE1	2.42	0.52
1:B:68:LEU:HA	1:B:71:ALA:CB	2.39	0.52
1:A:287:VAL:CG1	1:A:368:GLN:HG2	2.34	0.52
1:A:294:ILE:CD1	1:A:325:GLY:HA2	2.37	0.52
1:A:398:TYR:HD2	1:A:432:GLY:O	1.92	0.52
1:B:110:LEU:HD22	1:B:114:GLN:CG	2.40	0.52
1:B:161:LYS:O	1:B:163:ALA:N	2.42	0.52
1:B:163:ALA:HB3	1:B:164:MET:SD	2.49	0.52
1:B:258:LEU:HD22	1:B:399:TRP:HZ2	1.71	0.52
1:B:261:VAL:O	1:B:265:LEU:HB2	2.09	0.52
1:B:309:GLN:O	1:B:310:ASP:HB2	2.08	0.52
1:B:413:ASN:HB2	1:B:418:GLN:HB2	1.91	0.52
1:A:130:THR:HG21	1:A:194:VAL:HG22	1.91	0.52
1:A:196:CYS:SG	1:A:197:GLY:N	2.82	0.52
1:A:261:VAL:O	1:A:265:LEU:HB2	2.09	0.52
1:B:5:VAL:HG23	1:B:6:HIS:N	2.24	0.52
1:B:21:PRO:HB3	1:B:160:THR:O	2.09	0.52
1:B:237:GLU:O	1:B:237:GLU:HG3	2.10	0.52
1:B:374:GLN:HG3	1:B:436:ALA:HB3	1.92	0.52
1:A:277:HIS:CE1	1:A:281:LEU:HD13	2.44	0.52
1:A:369:CYS:O	1:A:372:ALA:HB3	2.10	0.52
1:A:450:GLN:C	1:A:452:ASP:H	2.13	0.52
1:A:453:ASP:O	1:A:456:LEU:HB2	2.08	0.52
1:B:239:ILE:CA	1:B:242:PHE:HB2	2.34	0.52
1:B:382:ARG:HH21	1:B:445:TYR:H	1.56	0.52
1:B:403:LEU:HD21	1:B:429:PHE:CE2	2.44	0.52
1:B:413:ASN:HB2	1:B:418:GLN:CB	2.39	0.52
1:A:50:ALA:O	1:A:52:SER:N	2.43	0.52
1:A:65:GLY:CA	1:A:253:PHE:CG	2.88	0.52
1:A:403:LEU:HD11	1:A:429:PHE:CE2	2.44	0.52
1:B:144:TYR:CD2	1:B:207:MET:HB3	2.45	0.52
1:B:238:LEU:HA	1:B:241:LEU:CD2	2.38	0.52
1:B:340:ARG:NH1	1:B:358:MET:SD	2.83	0.52
1:A:24:ILE:O	1:A:27:VAL:HB	2.10	0.52
1:A:68:LEU:HD13	1:A:71:ALA:CB	2.32	0.52
1:A:318:ALA:O	1:A:322:LEU:HG	2.10	0.52
1:A:402:GLY:O	1:A:405:THR:N	2.38	0.52
1:B:86:HIS:CG	1:B:87:LYS:H	2.27	0.52
1:B:102:VAL:C	1:B:105:PRO:HD2	2.30	0.52
1:B:300:ILE:HG13	1:B:301:ARG:N	2.23	0.52
1:B:312:LYS:C	1:B:314:ALA:N	2.60	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:410:GLY:CA	1:A:425:PHE:N	2.72	0.52
1:B:27:VAL:O	1:B:31:GLY:N	2.43	0.52
1:B:76:VAL:C	1:B:78:GLN:HG2	2.30	0.52
1:B:218:SER:O	1:B:220:ARG:N	2.43	0.52
1:B:239:ILE:O	1:B:243:ARG:HB2	2.10	0.52
1:B:360:LEU:O	1:B:361:LEU:C	2.48	0.52
1:B:408:ILE:O	1:B:408:ILE:CG2	2.58	0.52
1:A:77:ALA:HB2	1:A:154:THR:CB	2.40	0.52
1:A:173:LEU:HD12	1:A:206:ILE:HG21	1.91	0.52
1:A:373:VAL:O	1:A:377:ALA:HB3	2.09	0.52
1:A:446:TRP:CD1	1:A:447:LEU:HG	2.44	0.52
1:B:131:VAL:O	1:B:135:HIS:HB2	2.10	0.52
1:B:150:LEU:CA	1:B:154:THR:HB	2.40	0.52
1:B:182:VAL:O	1:B:190:GLU:O	2.27	0.52
1:B:342:GLN:HA	1:B:345:LEU:HD12	1.92	0.52
1:B:351:GLN:O	1:B:354:VAL:CG2	2.58	0.52
1:A:72:LEU:CA	1:A:75:VAL:HG13	2.38	0.52
1:A:150:LEU:CA	1:A:154:THR:HB	2.40	0.52
1:B:72:LEU:HD13	1:B:75:VAL:HG21	1.92	0.52
1:B:76:VAL:C	1:B:78:GLN:N	2.63	0.52
1:B:141:VAL:O	1:B:144:TYR:N	2.42	0.52
1:B:148:GLN:O	1:B:153:PHE:N	2.29	0.52
1:B:211:LEU:HG	1:B:212:LEU:N	2.23	0.52
1:B:266:VAL:HA	1:B:268:PRO:HD2	1.91	0.52
1:A:140:ALA:HB1	1:A:204:TYR:CD2	2.43	0.51
1:A:144:TYR:O	1:A:147:PHE:HB3	2.10	0.51
1:A:180:ILE:HG23	1:A:181:PHE:H	1.72	0.51
1:A:235:PRO:HB3	1:A:238:LEU:HD22	1.91	0.51
1:A:427:LEU:HD23	1:A:428:GLY:N	2.26	0.51
1:B:17:LYS:O	1:B:21:PRO:CD	2.58	0.51
1:B:149:ALA:O	1:B:154:THR:HB	2.10	0.51
1:B:235:PRO:C	1:B:238:LEU:HB2	2.30	0.51
1:B:272:THR:HA	1:B:275:ALA:CB	2.39	0.51
1:B:294:ILE:CD1	1:B:325:GLY:HA2	2.36	0.51
1:B:439:MET:HA	1:B:439:MET:HE2	1.92	0.51
1:A:141:VAL:O	1:A:144:TYR:N	2.43	0.51
1:A:413:ASN:HB2	1:A:418:GLN:HB2	1.90	0.51
1:B:174:ASN:C	1:B:178:ASN:ND2	2.64	0.51
1:B:351:GLN:OE1	1:B:352:VAL:O	2.27	0.51
1:A:252:LEU:HA	1:A:255:GLU:OE2	2.10	0.51
1:A:367:TYR:CA	1:A:430:ILE:CD1	2.88	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:410:GLY:CA	1:A:425:PHE:CB	2.77	0.51
1:B:33:GLY:O	1:B:37:THR:HB	2.10	0.51
1:B:110:LEU:HD11	1:B:132:GLY:O	2.09	0.51
1:B:185:LYS:HA	1:B:189:PRO:CB	2.40	0.51
1:B:185:LYS:H	1:B:189:PRO:HB3	1.76	0.51
1:B:360:LEU:CD2	1:B:423:LYS:HA	2.41	0.51
1:A:34:PHE:CD1	1:A:35:VAL:N	2.77	0.51
1:A:86:HIS:O	1:A:87:LYS:CB	2.58	0.51
1:A:281:LEU:HD23	1:A:281:LEU:C	2.31	0.51
1:A:351:GLN:C	1:A:351:GLN:CD	2.69	0.51
1:B:126:MET:HE3	1:B:191:LEU:HD23	1.92	0.51
1:A:69:LEU:HG	1:A:245:GLY:HA3	1.93	0.51
1:A:239:ILE:O	1:A:243:ARG:HB2	2.10	0.51
1:A:373:VAL:CG1	1:A:437:ALA:HB1	2.40	0.51
1:A:408:ILE:O	1:A:408:ILE:CG2	2.58	0.51
1:B:104:VAL:HB	1:B:105:PRO:HD3	1.93	0.51
1:B:144:TYR:O	1:B:147:PHE:HB3	2.11	0.51
1:B:450:GLN:C	1:B:452:ASP:H	2.13	0.51
1:A:15:LEU:HG	1:A:16:ILE:H	1.75	0.51
1:A:63:LEU:HD12	1:A:106:ILE:CG2	2.32	0.51
1:A:84:ARG:CG	1:A:87:LYS:HZ2	2.23	0.51
1:A:123:GLU:CG	1:A:127:ALA:HB3	2.40	0.51
1:A:131:VAL:O	1:A:132:GLY:C	2.47	0.51
1:A:147:PHE:O	1:A:148:GLN:C	2.48	0.51
1:A:150:LEU:O	1:A:154:THR:CB	2.58	0.51
1:A:258:LEU:HD13	1:A:399:TRP:NE1	2.25	0.51
1:B:150:LEU:HA	1:B:154:THR:HB	1.93	0.51
1:B:360:LEU:HD21	1:B:423:LYS:HA	1.92	0.51
1:A:70:MET:CE	1:A:99:ALA:HB2	2.41	0.51
1:A:187:GLY:O	1:A:188:ALA:HB2	2.11	0.51
1:A:200:THR:O	1:A:203:VAL:HB	2.10	0.51
1:A:262:VAL:O	1:A:266:VAL:HG23	2.11	0.51
1:B:20:THR:O	1:B:24:ILE:HB	2.10	0.51
1:B:63:LEU:C	1:B:65:GLY:H	2.14	0.51
1:A:46:ILE:HG22	1:A:46:ILE:O	2.11	0.51
1:A:180:ILE:C	1:A:180:ILE:HD13	2.30	0.51
1:A:204:TYR:CA	1:A:207:MET:HB2	2.24	0.51
1:A:375:VAL:HG12	1:A:376:VAL:N	2.24	0.51
1:B:84:ARG:HG2	1:B:87:LYS:NZ	2.25	0.51
1:B:180:ILE:HG23	1:B:181:PHE:H	1.75	0.51
1:B:244:LEU:C	1:B:244:LEU:HD22	2.30	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:311:THR:C	1:B:312:LYS:HZ3	2.15	0.51
1:A:82:ALA:HB2	1:A:308:GLU:OE1	2.10	0.51
1:A:413:ASN:C	1:A:415:LEU:N	2.62	0.51
1:A:443:ARG:NH2	1:A:446:TRP:CZ3	2.74	0.51
1:B:4:SER:O	1:B:5:VAL:C	2.48	0.51
1:B:126:MET:HE2	1:B:191:LEU:HD23	1.93	0.51
1:B:180:ILE:HD13	1:B:180:ILE:C	2.31	0.51
1:B:222:ALA:C	1:B:223:HIS:CG	2.84	0.51
1:A:20:THR:O	1:A:24:ILE:HB	2.11	0.51
1:A:175:ILE:O	1:A:178:ASN:N	2.44	0.51
1:A:180:ILE:HG23	1:A:181:PHE:CD1	2.42	0.51
1:A:190:GLU:HB3	1:A:194:VAL:HG11	1.93	0.51
1:A:237:GLU:O	1:A:237:GLU:HG3	2.11	0.51
1:B:72:LEU:CG	1:B:244:LEU:HD21	2.40	0.51
1:B:131:VAL:O	1:B:132:GLY:C	2.50	0.51
1:B:234:GLN:O	1:B:238:LEU:N	2.44	0.51
1:A:27:VAL:O	1:A:31:GLY:HA3	2.11	0.50
1:A:63:LEU:C	1:A:65:GLY:H	2.12	0.50
1:B:384:TYR:CE1	1:B:387:MET:HE1	2.45	0.50
1:B:385:LYS:O	1:B:387:MET:N	2.44	0.50
1:A:31:GLY:O	1:A:32:MET:C	2.48	0.50
1:B:21:PRO:CB	1:B:160:THR:HG23	2.41	0.50
1:B:196:CYS:O	1:B:199:ALA:CB	2.56	0.50
1:B:398:TYR:HD2	1:B:432:GLY:O	1.94	0.50
1:A:8:TYR:O	1:A:12:ALA:HB2	2.11	0.50
1:A:54:ALA:O	1:A:57:ILE:N	2.44	0.50
1:A:175:ILE:HB	1:A:176:PRO:HD2	1.93	0.50
1:A:385:LYS:CB	1:A:387:MET:SD	2.96	0.50
1:B:143:ALA:O	1:B:146:LEU:HB3	2.12	0.50
1:B:162:PRO:CA	1:B:165:VAL:HG12	2.40	0.50
1:B:210:LEU:HD22	1:B:210:LEU:N	2.23	0.50
1:B:376:VAL:O	1:B:377:ALA:O	2.29	0.50
1:A:33:GLY:O	1:A:37:THR:HB	2.11	0.50
1:A:51:VAL:HA	1:A:54:ALA:CB	2.41	0.50
1:A:196:CYS:O	1:A:199:ALA:CB	2.58	0.50
1:A:356:LEU:O	1:A:359:GLN:HB2	2.12	0.50
1:A:360:LEU:O	1:A:361:LEU:C	2.50	0.50
1:B:14:ASN:H	1:B:14:ASN:HD22	1.58	0.50
1:B:102:VAL:O	1:B:105:PRO:HD2	2.11	0.50
1:B:212:LEU:HD12	1:B:216:VAL:CG2	2.38	0.50
1:B:262:VAL:O	1:B:263:ALA:C	2.50	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:367:TYR:CA	1:B:430:ILE:CD1	2.89	0.50
1:B:440:LEU:N	1:B:440:LEU:HD22	2.26	0.50
1:A:69:LEU:O	1:A:73:VAL:HG23	2.12	0.50
1:A:235:PRO:O	1:A:238:LEU:HB2	2.11	0.50
1:B:72:LEU:CD1	1:B:244:LEU:HD21	2.42	0.50
1:B:178:ASN:OD1	1:B:199:ALA:HA	2.12	0.50
1:A:54:ALA:O	1:A:55:ALA:C	2.50	0.50
1:A:171:LEU:O	1:A:174:ASN:HB2	2.11	0.50
1:A:208:LEU:O	1:A:211:LEU:HB3	2.11	0.50
1:A:236:LYS:HA	1:A:239:ILE:CB	2.37	0.50
1:A:272:THR:O	1:A:272:THR:HG22	2.11	0.50
1:B:358:MET:HA	1:B:361:LEU:CD1	2.34	0.50
1:B:381:LEU:CB	1:B:382:ARG:HH11	2.25	0.50
1:A:96:LEU:HD23	1:A:96:LEU:C	2.32	0.50
1:A:101:LEU:O	1:A:105:PRO:CG	2.59	0.50
1:A:200:THR:HA	1:A:203:VAL:HG23	1.94	0.50
1:A:373:VAL:HG13	1:A:437:ALA:HB1	1.93	0.50
1:B:11:GLU:N	1:B:301:ARG:HH22	2.09	0.50
1:B:38:ILE:HG23	1:B:39:MET:H	1.76	0.50
1:B:65:GLY:HA2	1:B:253:PHE:CB	2.42	0.50
1:B:86:HIS:O	1:B:87:LYS:HB2	2.11	0.50
1:B:94:GLN:NE2	1:B:231:HIS:HB2	2.27	0.50
1:B:108:ALA:O	1:B:109:VAL:C	2.50	0.50
1:B:353:VAL:C	1:B:357:ALA:H	2.14	0.50
1:A:107:ILE:HG12	1:A:139:PHE:CE2	2.47	0.50
1:A:209:LEU:CD1	1:A:210:LEU:HD13	2.42	0.50
1:A:261:VAL:O	1:A:262:VAL:C	2.49	0.50
1:A:351:GLN:O	1:A:354:VAL:HG23	2.12	0.50
1:A:366:ILE:HG22	1:A:430:ILE:CD1	2.41	0.50
1:B:7:ARG:O	1:B:11:GLU:HG3	2.12	0.50
1:B:73:VAL:HG11	1:B:241:LEU:HG	1.91	0.50
1:B:114:GLN:O	1:B:128:THR:CG2	2.60	0.50
1:B:312:LYS:HZ2	1:B:449:LYS:HD3	1.75	0.50
1:A:104:VAL:HB	1:A:105:PRO:HD3	1.92	0.50
1:A:151:ARG:O	1:A:152:SER:C	2.49	0.50
1:A:275:ALA:CA	1:A:353:VAL:CG2	2.90	0.50
1:A:291:PRO:HB3	1:A:372:ALA:HA	1.93	0.50
1:A:318:ALA:CA	1:A:381:LEU:HD21	2.37	0.50
1:A:398:TYR:CD1	1:A:398:TYR:C	2.84	0.50
1:A:406:GLY:O	1:A:425:PHE:HB2	2.12	0.50
1:B:70:MET:HE1	1:B:99:ALA:HB2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:138:ILE:O	1:B:138:ILE:HG23	2.11	0.50
1:B:159:LEU:HD12	1:B:159:LEU:C	2.32	0.50
1:B:164:MET:SD	1:B:164:MET:N	2.79	0.50
1:B:275:ALA:O	1:B:279:VAL:CG2	2.58	0.50
1:B:387:MET:O	1:B:391:PHE:HB3	2.12	0.50
1:B:409:LEU:O	1:B:412:THR:HG22	2.12	0.50
1:A:86:HIS:CD2	1:A:87:LYS:N	2.80	0.49
1:A:258:LEU:HD22	1:A:399:TRP:HZ2	1.76	0.49
1:A:275:ALA:HA	1:A:353:VAL:CB	2.41	0.49
1:A:323:MET:O	1:A:326:LEU:HB3	2.11	0.49
1:A:360:LEU:HD21	1:A:423:LYS:CB	2.42	0.49
1:A:363:PHE:CE2	1:A:426:TRP:HB3	2.47	0.49
1:A:423:LYS:HG2	1:A:424:GLY:N	2.26	0.49
1:A:444:LEU:C	1:A:446:TRP:N	2.59	0.49
1:B:27:VAL:O	1:B:31:GLY:CA	2.60	0.49
1:B:69:LEU:HD13	1:B:102:VAL:HG21	1.94	0.49
1:B:115:PHE:HD1	1:B:129:LYS:HD3	1.77	0.49
1:B:140:ALA:CB	1:B:204:TYR:CE2	2.92	0.49
1:B:145:LEU:O	1:B:148:GLN:HB3	2.12	0.49
1:B:392:HIS:O	1:B:395:PHE:N	2.45	0.49
1:A:13:SER:C	1:A:17:LYS:HG3	2.32	0.49
1:A:135:HIS:HA	1:A:138:ILE:H	1.77	0.49
1:A:149:ALA:O	1:A:154:THR:N	2.29	0.49
1:A:210:LEU:HD22	1:A:210:LEU:N	2.25	0.49
1:A:234:GLN:HA	1:A:237:GLU:HB3	1.95	0.49
1:B:252:LEU:O	1:B:255:GLU:HB3	2.12	0.49
1:B:402:GLY:O	1:B:403:LEU:C	2.50	0.49
1:A:145:LEU:CD1	1:A:148:GLN:NE2	2.74	0.49
1:A:206:ILE:CG1	1:A:207:MET:N	2.74	0.49
1:A:381:LEU:O	1:A:384:TYR:CD2	2.65	0.49
1:B:413:ASN:ND2	1:B:414:TRP:CZ3	2.71	0.49
1:B:444:LEU:O	1:B:445:TYR:HB2	2.12	0.49
1:A:141:VAL:HB	1:A:142:PRO:HD3	1.94	0.49
1:A:209:LEU:HD13	1:A:210:LEU:N	2.26	0.49
1:A:417:GLU:HA	1:A:417:GLU:OE1	2.12	0.49
1:B:388:THR:HA	1:B:391:PHE:CE1	2.47	0.49
1:A:139:PHE:O	1:A:142:PRO:HD2	2.13	0.49
1:A:354:VAL:HG12	1:A:355:ALA:N	2.28	0.49
1:B:151:ARG:O	1:B:152:SER:C	2.50	0.49
1:B:348:THR:O	1:B:348:THR:HG22	2.13	0.49
1:B:356:LEU:HD12	1:B:359:GLN:HG3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:131:VAL:O	1:A:135:HIS:CB	2.61	0.49
1:A:239:ILE:O	1:A:239:ILE:HG22	2.13	0.49
1:A:326:LEU:CD1	1:A:330:CYS:HB2	2.42	0.49
1:A:347:TYR:HB3	1:A:349:GLU:CG	2.42	0.49
1:A:351:GLN:NE2	1:A:354:VAL:CB	2.74	0.49
1:A:406:GLY:HA2	1:A:409:LEU:HB2	1.93	0.49
1:B:371:ASP:OD1	1:B:375:VAL:HG23	2.11	0.49
1:A:3:ASN:C	1:A:5:VAL:H	2.16	0.49
1:A:14:ASN:HB3	1:A:301:ARG:HG2	1.94	0.49
1:A:183:TYR:HB3	1:A:184:GLY:H	1.44	0.49
1:A:373:VAL:HG13	1:A:437:ALA:HB2	1.93	0.49
1:A:382:ARG:NH2	1:A:445:TYR:N	2.56	0.49
1:A:398:TYR:OH	1:A:429:PHE:HE1	1.95	0.49
1:B:78:GLN:HG3	1:B:79:LEU:N	2.27	0.49
1:B:96:LEU:HD23	1:B:99:ALA:HB3	1.95	0.49
1:A:8:TYR:CD1	1:A:9:LYS:N	2.81	0.49
1:A:131:VAL:O	1:A:135:HIS:N	2.45	0.49
1:A:370:MET:O	1:A:373:VAL:HG12	2.12	0.49
1:B:72:LEU:HD22	1:B:75:VAL:HG11	1.93	0.49
1:A:5:VAL:HA	1:A:8:TYR:OH	2.13	0.49
1:A:52:SER:CA	1:A:123:GLU:HG3	2.43	0.49
1:A:185:LYS:HA	1:A:189:PRO:CB	2.42	0.49
1:A:219:LYS:HD2	1:A:220:ARG:HG2	1.95	0.49
1:A:237:GLU:O	1:A:241:LEU:N	2.40	0.49
1:B:4:SER:O	1:B:7:ARG:N	2.46	0.49
1:B:204:TYR:HA	1:B:207:MET:CG	2.43	0.49
1:A:165:VAL:C	1:A:167:GLY:N	2.65	0.49
1:A:211:LEU:HG	1:A:212:LEU:N	2.26	0.49
1:A:236:LYS:O	1:A:239:ILE:HB	2.13	0.49
1:A:290:PHE:HB3	1:A:291:PRO:CD	2.43	0.49
1:A:338:LEU:HG	1:A:339:PHE:N	2.26	0.49
1:A:342:GLN:O	1:A:345:LEU:HB2	2.12	0.49
1:B:86:HIS:O	1:B:87:LYS:CB	2.59	0.49
1:B:92:VAL:HG12	1:B:93:HIS:N	2.28	0.49
1:B:155:ASP:CB	1:B:159:LEU:N	2.56	0.49
1:B:166:ILE:HG13	1:B:207:MET:HA	1.94	0.49
1:B:191:LEU:O	1:B:194:VAL:HB	2.12	0.49
1:B:376:VAL:HG13	1:B:377:ALA:N	2.27	0.49
1:A:5:VAL:HG23	1:A:6:HIS:H	1.78	0.48
1:A:200:THR:HA	1:A:203:VAL:CB	2.43	0.48
1:A:273:VAL:CG1	1:A:274:VAL:H	2.05	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:282:ASN:HB3	1:A:346:LEU:CD1	2.41	0.48
1:A:351:GLN:O	1:A:354:VAL:CB	2.60	0.48
1:A:439:MET:CE	1:A:442:GLN:NE2	2.76	0.48
1:B:25:ALA:O	1:B:28:ALA:HB3	2.13	0.48
1:B:93:HIS:HE2	1:B:225:LYS:HB2	1.78	0.48
1:B:135:HIS:HA	1:B:138:ILE:H	1.78	0.48
1:B:245:GLY:C	1:B:248:VAL:HG22	2.33	0.48
1:A:93:HIS:NE2	1:A:225:LYS:HB2	2.28	0.48
1:A:155:ASP:OD2	1:A:159:LEU:O	2.31	0.48
1:A:384:TYR:HE1	1:A:387:MET:HE1	1.78	0.48
1:A:445:TYR:O	1:A:446:TRP:CB	2.59	0.48
1:B:18:LEU:HD13	1:B:300:ILE:CG1	2.43	0.48
1:B:214:TYR:CZ	1:B:219:LYS:HE3	2.48	0.48
1:B:312:LYS:NZ	1:B:449:LYS:CE	2.76	0.48
1:A:88:ILE:N	1:A:89:PRO:CD	2.76	0.48
1:A:450:GLN:O	1:A:453:ASP:OD1	2.31	0.48
1:B:174:ASN:ND2	1:B:203:VAL:HG22	2.27	0.48
1:B:406:GLY:HA2	1:B:409:LEU:HB2	1.95	0.48
1:A:15:LEU:CG	1:A:16:ILE:N	2.71	0.48
1:A:381:LEU:CB	1:A:382:ARG:HH11	2.27	0.48
1:A:400:VAL:O	1:A:404:PRO:HD2	2.14	0.48
1:A:413:ASN:CB	1:A:418:GLN:HG2	2.42	0.48
1:B:13:SER:O	1:B:17:LYS:HG3	2.13	0.48
1:B:22:VAL:O	1:B:23:LEU:C	2.51	0.48
1:B:34:PHE:CD1	1:B:35:VAL:N	2.81	0.48
1:B:174:ASN:O	1:B:178:ASN:ND2	2.46	0.48
1:B:258:LEU:HD13	1:B:399:TRP:NE1	2.29	0.48
1:B:347:TYR:HB3	1:B:349:GLU:CG	2.43	0.48
1:B:381:LEU:O	1:B:384:TYR:CD2	2.67	0.48
1:A:31:GLY:O	1:A:33:GLY:N	2.46	0.48
1:A:84:ARG:O	1:A:86:HIS:O	2.31	0.48
1:A:384:TYR:HD1	1:A:385:LYS:HB2	1.78	0.48
1:A:407:TYR:O	1:A:411:MET:HG3	2.12	0.48
1:A:436:ALA:O	1:A:440:LEU:CD2	2.61	0.48
1:A:445:TYR:HB3	1:A:448:GLN:N	2.29	0.48
1:B:22:VAL:O	1:B:25:ALA:N	2.46	0.48
1:B:206:ILE:HG13	1:B:207:MET:H	1.76	0.48
1:B:394:THR:HG21	1:B:439:MET:HB3	1.89	0.48
1:B:450:GLN:N	1:B:450:GLN:CD	2.67	0.48
1:A:384:TYR:CE1	1:A:387:MET:HE1	2.49	0.48
1:A:444:LEU:C	1:A:444:LEU:HD13	2.34	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:128:THR:CG2	1:B:129:LYS:N	2.62	0.48
1:B:167:GLY:O	1:B:170:GLY:N	2.46	0.48
1:B:180:ILE:HA	1:B:184:GLY:HA3	1.96	0.48
1:B:351:GLN:HE21	1:B:354:VAL:HG12	1.78	0.48
1:B:374:GLN:O	1:B:378:ALA:CB	2.62	0.48
1:B:375:VAL:O	1:B:376:VAL:C	2.52	0.48
1:A:312:LYS:O	1:A:315:ALA:N	2.46	0.48
1:B:235:PRO:O	1:B:239:ILE:N	2.46	0.48
1:A:25:ALA:HB2	1:A:163:ALA:CB	2.35	0.48
1:A:104:VAL:CA	1:A:107:ILE:HG13	2.27	0.48
1:A:166:ILE:HB	1:A:210:LEU:CG	2.44	0.48
1:A:264:LEU:O	1:A:265:LEU:C	2.51	0.48
1:A:299:SER:HB2	1:A:380:SER:CA	2.43	0.48
1:A:406:GLY:CA	1:A:428:GLY:HA3	2.43	0.48
1:B:11:GLU:O	1:B:15:LEU:HD23	2.13	0.48
1:B:69:LEU:CA	1:B:248:VAL:CG2	2.85	0.48
1:B:151:ARG:HG3	1:B:152:SER:H	1.77	0.48
1:B:173:LEU:HD12	1:B:206:ILE:HG21	1.96	0.48
1:B:247:PRO:O	1:B:251:ALA:HB2	2.12	0.48
1:B:312:LYS:NZ	1:B:312:LYS:CA	2.74	0.48
1:B:374:GLN:HG3	1:B:436:ALA:CB	2.44	0.48
1:A:17:LYS:O	1:A:21:PRO:CD	2.61	0.48
1:A:149:ALA:O	1:A:154:THR:HB	2.14	0.48
1:A:358:MET:C	1:A:358:MET:SD	2.92	0.48
1:A:446:TRP:HB3	1:A:447:LEU:HD12	1.96	0.48
1:B:150:LEU:O	1:B:154:THR:CG2	2.62	0.48
1:B:184:GLY:O	1:B:185:LYS:C	2.52	0.48
1:B:245:GLY:O	1:B:248:VAL:HG22	2.14	0.48
1:B:256:VAL:HG12	1:B:257:THR:N	2.29	0.48
1:A:58:TRP:O	1:A:61:SER:HB3	2.14	0.48
1:A:143:ALA:O	1:A:146:LEU:HB3	2.14	0.48
1:A:162:PRO:HA	1:A:165:VAL:HG11	1.94	0.48
1:A:174:ASN:O	1:A:178:ASN:ND2	2.47	0.48
1:A:203:VAL:O	1:A:206:ILE:CG1	2.61	0.48
1:A:239:ILE:CA	1:A:242:PHE:HB2	2.32	0.48
1:A:290:PHE:CB	1:A:291:PRO:CD	2.91	0.48
1:A:443:ARG:HD3	1:A:443:ARG:C	2.33	0.48
1:B:147:PHE:HB2	1:B:211:LEU:CD1	2.32	0.48
1:B:148:GLN:OE1	1:B:153:PHE:CE1	2.66	0.48
1:B:170:GLY:HA2	1:B:206:ILE:CD1	2.44	0.48
1:B:210:LEU:H	1:B:210:LEU:CD2	2.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:312:LYS:N	1:B:312:LYS:HE2	2.28	0.48
1:B:341:GLU:CD	1:B:342:GLN:H	2.16	0.48
1:A:8:TYR:N	1:A:11:GLU:OE1	2.47	0.47
1:A:22:VAL:CG2	1:A:23:LEU:H	2.22	0.47
1:A:126:MET:HE3	1:A:191:LEU:HD23	1.94	0.47
1:A:180:ILE:CG2	1:A:181:PHE:N	2.77	0.47
1:A:416:THR:O	1:A:417:GLU:HG2	2.14	0.47
1:B:328:THR:O	1:B:331:ILE:N	2.47	0.47
1:B:417:GLU:HA	1:B:417:GLU:OE1	2.13	0.47
1:A:86:HIS:O	1:A:87:LYS:HB2	2.13	0.47
1:A:146:LEU:O	1:A:149:ALA:CB	2.60	0.47
1:A:147:PHE:CE2	1:A:211:LEU:HA	2.49	0.47
1:A:150:LEU:O	1:A:154:THR:CG2	2.62	0.47
1:A:161:LYS:N	1:A:162:PRO:HD2	2.28	0.47
1:A:162:PRO:CA	1:A:165:VAL:HG12	2.45	0.47
1:A:388:THR:HA	1:A:391:PHE:CE1	2.49	0.47
1:A:402:GLY:O	1:A:403:LEU:C	2.50	0.47
1:B:118:ARG:HH11	1:B:118:ARG:CG	2.26	0.47
1:B:208:LEU:O	1:B:211:LEU:HB3	2.14	0.47
1:B:318:ALA:CA	1:B:381:LEU:HD21	2.35	0.47
1:B:350:ASN:ND2	1:B:351:GLN:N	2.62	0.47
1:B:373:VAL:CG1	1:B:437:ALA:HB1	2.44	0.47
1:B:385:LYS:C	1:B:387:MET:SD	2.92	0.47
1:B:427:LEU:O	1:B:430:ILE:HB	2.14	0.47
1:A:257:THR:HG22	1:A:258:LEU:H	1.79	0.47
1:A:427:LEU:O	1:A:430:ILE:N	2.47	0.47
1:B:97:ILE:O	1:B:101:LEU:HG	2.14	0.47
1:B:302:VAL:HB	1:B:317:ALA:HB1	1.96	0.47
1:A:70:MET:HE1	1:A:95:GLY:O	2.14	0.47
1:B:72:LEU:O	1:B:73:VAL:C	2.52	0.47
1:B:381:LEU:HB2	1:B:382:ARG:HH11	1.78	0.47
1:B:443:ARG:O	1:B:443:ARG:CG	2.61	0.47
1:A:57:ILE:C	1:A:59:LEU:N	2.68	0.47
1:A:78:GLN:HG3	1:A:79:LEU:N	2.29	0.47
1:A:250:ALA:O	1:A:254:PHE:HB2	2.14	0.47
1:A:336:THR:OG1	1:A:368:GLN:NE2	2.42	0.47
1:A:351:GLN:HE21	1:A:355:ALA:N	2.11	0.47
1:B:46:ILE:O	1:B:46:ILE:HG22	2.14	0.47
1:B:276:ALA:CA	1:B:360:LEU:CD1	2.93	0.47
1:A:4:SER:HA	1:A:7:ARG:CB	2.27	0.47
1:A:148:GLN:O	1:A:149:ALA:C	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:281:LEU:O	1:A:282:ASN:C	2.53	0.47
1:A:367:TYR:CB	1:A:430:ILE:HD11	2.44	0.47
1:B:151:ARG:CG	1:B:152:SER:N	2.72	0.47
1:B:172:LEU:C	1:B:172:LEU:HD13	2.34	0.47
1:B:385:LYS:CE	1:B:460:ALA:HB2	2.44	0.47
1:A:130:THR:HG22	1:A:194:VAL:HG22	1.95	0.47
1:A:221:LEU:HB3	1:A:222:ALA:H	1.52	0.47
1:A:271:SER:O	1:A:273:VAL:N	2.48	0.47
1:A:371:ASP:OD1	1:A:375:VAL:CG2	2.63	0.47
1:A:411:MET:CA	1:A:414:TRP:HB2	2.45	0.47
1:B:53:ILE:HD12	1:B:53:ILE:C	2.35	0.47
1:B:127:ALA:O	1:B:131:VAL:CG1	2.58	0.47
1:B:128:THR:O	1:B:131:VAL:CG2	2.52	0.47
1:B:131:VAL:O	1:B:135:HIS:CG	2.67	0.47
1:B:141:VAL:HB	1:B:142:PRO:HD3	1.95	0.47
1:B:144:TYR:HE1	1:B:148:GLN:HB2	1.78	0.47
1:B:235:PRO:CA	1:B:238:LEU:HD13	2.43	0.47
1:B:250:ALA:O	1:B:251:ALA:C	2.53	0.47
1:B:272:THR:O	1:B:272:THR:HG22	2.15	0.47
1:B:273:VAL:O	1:B:274:VAL:C	2.52	0.47
1:B:387:MET:HB3	1:B:443:ARG:NH1	2.30	0.47
1:B:413:ASN:CB	1:B:418:GLN:HG2	2.45	0.47
1:A:68:LEU:HA	1:A:71:ALA:CB	2.45	0.47
1:A:135:HIS:C	1:A:137:VAL:N	2.64	0.47
1:A:445:TYR:O	1:A:446:TRP:HB3	2.15	0.47
1:B:266:VAL:CG2	1:B:407:TYR:CE2	2.97	0.47
1:B:278:GLN:O	1:B:282:ASN:HB2	2.14	0.47
1:B:351:GLN:OE1	1:B:352:VAL:C	2.53	0.47
1:B:384:TYR:HD1	1:B:385:LYS:HB2	1.79	0.47
1:B:401:LEU:O	1:B:405:THR:CB	2.61	0.47
1:A:364:ALA:O	1:A:367:TYR:N	2.47	0.47
1:B:114:GLN:HB3	1:B:128:THR:HG23	1.97	0.47
1:B:274:VAL:HG13	1:B:278:GLN:CD	2.34	0.47
1:A:23:LEU:O	1:A:23:LEU:HD13	2.15	0.47
1:A:250:ALA:O	1:A:254:PHE:CB	2.63	0.47
1:A:302:VAL:O	1:A:306:LEU:HD13	2.15	0.47
1:B:45:ALA:O	1:B:48:MET:N	2.48	0.47
1:B:50:ALA:O	1:B:52:SER:N	2.48	0.47
1:B:51:VAL:HA	1:B:54:ALA:CB	2.45	0.47
1:B:69:LEU:O	1:B:73:VAL:HG23	2.14	0.47
1:B:96:LEU:O	1:B:99:ALA:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:203:VAL:HG12	1:B:207:MET:CE	2.45	0.47
1:B:412:THR:HG23	1:B:417:GLU:H	1.78	0.47
1:B:436:ALA:O	1:B:439:MET:N	2.48	0.47
1:B:445:TYR:CB	1:B:448:GLN:HA	2.39	0.47
1:A:4:SER:O	1:A:5:VAL:C	2.51	0.46
1:A:93:HIS:CE1	1:A:225:LYS:HB2	2.49	0.46
1:A:110:LEU:HD22	1:A:114:GLN:CG	2.45	0.46
1:A:159:LEU:C	1:A:159:LEU:HD12	2.36	0.46
1:A:239:ILE:HA	1:A:242:PHE:HB3	1.92	0.46
1:A:344:ALA:HB2	1:A:361:LEU:CD1	2.45	0.46
1:B:101:LEU:O	1:B:105:PRO:CG	2.62	0.46
1:B:180:ILE:CG2	1:B:181:PHE:N	2.78	0.46
1:B:250:ALA:O	1:B:254:PHE:N	2.33	0.46
1:B:252:LEU:HA	1:B:255:GLU:OE2	2.14	0.46
1:B:332:THR:HA	1:B:335:LEU:CD2	2.45	0.46
1:B:352:VAL:O	1:B:354:VAL:HB	2.15	0.46
1:A:45:ALA:O	1:A:46:ILE:C	2.53	0.46
1:A:74:PRO:HG2	1:A:146:LEU:HD22	1.94	0.46
1:A:76:VAL:C	1:A:78:GLN:HG2	2.34	0.46
1:A:184:GLY:O	1:A:186:PHE:N	2.48	0.46
1:A:250:ALA:O	1:A:251:ALA:C	2.52	0.46
1:A:257:THR:HG23	1:A:258:LEU:N	2.30	0.46
1:A:311:THR:C	1:A:312:LYS:HE2	2.35	0.46
1:A:429:PHE:O	1:A:429:PHE:CD1	2.67	0.46
1:A:450:GLN:CD	1:A:450:GLN:N	2.67	0.46
1:B:95:GLY:O	1:B:98:LEU:HB3	2.15	0.46
1:B:257:THR:HG23	1:B:258:LEU:N	2.31	0.46
1:B:351:GLN:CD	1:B:351:GLN:C	2.74	0.46
1:B:411:MET:CA	1:B:414:TRP:HB2	2.45	0.46
1:B:429:PHE:O	1:B:429:PHE:CD1	2.68	0.46
1:A:238:LEU:HA	1:A:241:LEU:CD2	2.45	0.46
1:A:302:VAL:HB	1:A:317:ALA:HB1	1.97	0.46
1:A:351:GLN:HE21	1:A:354:VAL:CB	2.29	0.46
1:B:8:TYR:CD1	1:B:9:LYS:N	2.84	0.46
1:B:12:ALA:HA	1:B:15:LEU:HD21	1.96	0.46
1:B:275:ALA:HB1	1:B:353:VAL:CG1	2.45	0.46
1:B:340:ARG:O	1:B:341:GLU:C	2.54	0.46
1:A:5:VAL:HG23	1:A:6:HIS:N	2.29	0.46
1:A:40:ALA:O	1:A:42:GLY:N	2.49	0.46
1:A:122:VAL:O	1:A:124:GLU:OE1	2.33	0.46
1:A:326:LEU:O	1:A:330:CYS:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:329:ALA:HB2	1:A:372:ALA:HB2	1.97	0.46
1:B:23:LEU:O	1:B:23:LEU:HD13	2.15	0.46
1:B:123:GLU:OE1	1:B:127:ALA:HB3	2.15	0.46
1:B:151:ARG:O	1:B:155:ASP:OD2	2.33	0.46
1:B:340:ARG:O	1:B:343:ILE:HB	2.15	0.46
1:B:351:GLN:NE2	1:B:354:VAL:CB	2.77	0.46
1:B:400:VAL:HA	1:B:404:PRO:HG2	1.97	0.46
1:A:14:ASN:CB	1:A:301:ARG:HG3	2.41	0.46
1:A:19:ALA:O	1:A:22:VAL:CG2	2.64	0.46
1:A:46:ILE:O	1:A:48:MET:N	2.49	0.46
1:A:178:ASN:OD1	1:A:199:ALA:CA	2.63	0.46
1:A:231:HIS:CB	1:A:235:PRO:HD3	2.41	0.46
1:A:348:THR:O	1:A:348:THR:HG22	2.16	0.46
1:B:14:ASN:O	1:B:17:LYS:HB2	2.16	0.46
1:B:52:SER:CA	1:B:123:GLU:HG3	2.45	0.46
1:B:54:ALA:O	1:B:55:ALA:C	2.54	0.46
1:B:81:GLY:HA3	1:B:307:GLY:CA	2.45	0.46
1:B:140:ALA:HB1	1:B:204:TYR:CD2	2.51	0.46
1:B:166:ILE:HB	1:B:210:LEU:CB	2.46	0.46
1:B:360:LEU:CD2	1:B:423:LYS:CB	2.93	0.46
1:B:423:LYS:CG	1:B:424:GLY:N	2.79	0.46
1:A:42:GLY:C	1:A:44:SER:H	2.19	0.46
1:A:110:LEU:CD1	1:A:111:PHE:N	2.78	0.46
1:A:129:LYS:HA	1:A:132:GLY:HA3	1.98	0.46
1:A:256:VAL:HG12	1:A:257:THR:N	2.31	0.46
1:A:373:VAL:O	1:A:377:ALA:CB	2.63	0.46
1:A:418:GLN:C	1:A:420:LEU:N	2.67	0.46
1:B:80:ASN:HD21	1:B:157:MET:HG2	1.81	0.46
1:B:407:TYR:O	1:B:411:MET:HG3	2.16	0.46
1:A:42:GLY:HA2	1:A:50:ALA:H	1.75	0.46
1:A:74:PRO:CG	1:A:149:ALA:HB1	2.44	0.46
1:A:95:GLY:O	1:A:98:LEU:HB3	2.15	0.46
1:A:178:ASN:O	1:A:179:TRP:C	2.54	0.46
1:A:204:TYR:HA	1:A:207:MET:CG	2.45	0.46
1:A:454:VAL:HA	1:A:457:HIS:HB2	1.98	0.46
1:B:45:ALA:O	1:B:46:ILE:C	2.53	0.46
1:B:59:LEU:HD13	1:B:59:LEU:N	2.29	0.46
1:B:81:GLY:HA3	1:B:307:GLY:HA3	1.98	0.46
1:B:294:ILE:O	1:B:295:GLY:C	2.53	0.46
1:B:360:LEU:HD22	1:B:426:TRP:CD1	2.41	0.46
1:A:104:VAL:HG22	1:A:107:ILE:HD12	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:235:PRO:C	1:A:238:LEU:HB2	2.36	0.46
1:A:244:LEU:C	1:A:244:LEU:HD22	2.35	0.46
1:A:312:LYS:C	1:A:314:ALA:N	2.65	0.46
1:B:131:VAL:O	1:B:135:HIS:CB	2.64	0.46
1:B:206:ILE:O	1:B:210:LEU:CD2	2.64	0.46
1:B:262:VAL:O	1:B:266:VAL:HG23	2.16	0.46
1:B:328:THR:O	1:B:332:THR:N	2.38	0.46
1:B:382:ARG:NH2	1:B:443:ARG:O	2.47	0.46
1:A:237:GLU:C	1:A:240:ARG:H	2.20	0.46
1:B:12:ALA:HA	1:B:15:LEU:CD2	2.46	0.46
1:B:136:ALA:O	1:B:139:PHE:HB2	2.16	0.46
1:B:204:TYR:HA	1:B:207:MET:SD	2.56	0.46
1:B:219:LYS:HD3	1:B:220:ARG:HE	1.79	0.46
1:B:363:PHE:HE2	1:B:426:TRP:O	1.99	0.46
1:B:382:ARG:HB3	1:B:391:PHE:CD1	2.51	0.46
1:B:413:ASN:O	1:B:415:LEU:N	2.46	0.46
1:A:50:ALA:O	1:A:51:VAL:C	2.53	0.46
1:A:91:GLU:O	1:A:94:GLN:HB2	2.16	0.46
1:A:141:VAL:HG22	1:A:207:MET:CE	2.45	0.46
1:A:147:PHE:HB2	1:A:211:LEU:CD1	2.33	0.46
1:A:216:VAL:HG22	1:A:225:LYS:CE	2.46	0.46
1:A:374:GLN:HA	1:A:437:ALA:HA	1.97	0.46
1:B:104:VAL:O	1:B:107:ILE:N	2.48	0.46
1:B:175:ILE:HB	1:B:176:PRO:HD2	1.97	0.46
1:B:410:GLY:CA	1:B:425:PHE:N	2.78	0.46
1:A:82:ALA:HB3	1:A:308:GLU:HG3	1.97	0.45
1:A:148:GLN:OE1	1:A:153:PHE:CE1	2.69	0.45
1:A:286:LEU:HD12	1:A:286:LEU:N	2.30	0.45
1:A:448:GLN:N	1:A:448:GLN:OE1	2.49	0.45
1:B:53:ILE:HA	1:B:56:SER:HB3	1.98	0.45
1:B:66:VAL:HA	1:B:249:ALA:HB2	1.95	0.45
1:B:69:LEU:C	1:B:69:LEU:CD2	2.84	0.45
1:B:70:MET:CE	1:B:99:ALA:HB2	2.46	0.45
1:B:88:ILE:N	1:B:89:PRO:CD	2.79	0.45
1:B:129:LYS:HA	1:B:132:GLY:HA3	1.98	0.45
1:B:182:VAL:HG22	1:B:195:GLY:C	2.37	0.45
1:B:353:VAL:CB	1:B:357:ALA:HB2	2.46	0.45
1:B:400:VAL:O	1:B:404:PRO:HD2	2.16	0.45
1:B:405:THR:O	1:B:409:LEU:N	2.49	0.45
1:A:7:ARG:O	1:A:11:GLU:HG3	2.16	0.45
1:A:28:ALA:O	1:A:29:GLN:C	2.55	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:78:GLN:C	1:A:80:ASN:N	2.69	0.45
1:A:234:GLN:C	1:A:237:GLU:HB3	2.36	0.45
1:A:394:THR:HG21	1:A:439:MET:HB3	1.93	0.45
1:B:181:PHE:HB2	1:B:198:VAL:HG11	1.98	0.45
1:B:257:THR:HG22	1:B:258:LEU:H	1.81	0.45
1:A:161:LYS:O	1:A:163:ALA:N	2.50	0.45
1:A:235:PRO:CG	1:A:238:LEU:HD22	2.45	0.45
1:A:236:LYS:HA	1:A:239:ILE:CG1	2.47	0.45
1:A:272:THR:HA	1:A:275:ALA:CB	2.46	0.45
1:A:410:GLY:CA	1:A:425:PHE:CA	2.94	0.45
1:B:3:ASN:C	1:B:5:VAL:N	2.70	0.45
1:B:57:ILE:HA	1:B:60:PRO:CD	2.41	0.45
1:B:151:ARG:CG	1:B:162:PRO:HG2	2.47	0.45
1:B:174:ASN:O	1:B:178:ASN:N	2.48	0.45
1:B:206:ILE:O	1:B:210:LEU:HD22	2.16	0.45
1:B:219:LYS:HD3	1:B:220:ARG:NE	2.31	0.45
1:B:247:PRO:CB	1:B:389:ALA:HA	2.46	0.45
1:B:273:VAL:O	1:B:275:ALA:N	2.49	0.45
1:B:318:ALA:CA	1:B:381:LEU:CD2	2.94	0.45
1:B:351:GLN:OE1	1:B:352:VAL:CA	2.64	0.45
1:B:373:VAL:O	1:B:377:ALA:HB3	2.15	0.45
1:B:444:LEU:HD13	1:B:444:LEU:C	2.37	0.45
1:A:29:GLN:HA	1:A:32:MET:CE	2.46	0.45
1:A:73:VAL:HG11	1:A:241:LEU:HG	1.93	0.45
1:A:114:GLN:O	1:A:128:THR:CG2	2.64	0.45
1:A:116:ILE:HG23	1:A:117:ILE:O	2.16	0.45
1:A:144:TYR:HE1	1:A:148:GLN:HB2	1.80	0.45
1:A:161:LYS:C	1:A:163:ALA:H	2.19	0.45
1:A:328:THR:C	1:A:330:CYS:N	2.70	0.45
1:B:4:SER:C	1:B:7:ARG:H	2.20	0.45
1:B:16:ILE:CA	1:B:19:ALA:HB3	2.44	0.45
1:B:116:ILE:C	1:B:117:ILE:HD12	2.36	0.45
1:B:179:TRP:CE3	1:B:184:GLY:HA3	2.51	0.45
1:B:185:LYS:N	1:B:189:PRO:HB3	2.32	0.45
1:B:187:GLY:O	1:B:188:ALA:HB2	2.15	0.45
1:A:104:VAL:HG22	1:A:107:ILE:CD1	2.47	0.45
1:A:258:LEU:HD13	1:A:399:TRP:CD2	2.51	0.45
1:A:277:HIS:O	1:A:278:GLN:C	2.54	0.45
1:A:409:LEU:O	1:A:412:THR:HG22	2.17	0.45
1:A:436:ALA:O	1:A:439:MET:HB2	2.16	0.45
1:B:312:LYS:O	1:B:315:ALA:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:318:ALA:HA	1:B:381:LEU:HD11	1.99	0.45
1:A:16:ILE:O	1:A:16:ILE:HG12	2.15	0.45
1:A:127:ALA:O	1:A:131:VAL:HG22	2.16	0.45
1:A:222:ALA:O	1:A:223:HIS:CB	2.64	0.45
1:A:312:LYS:HZ2	1:A:449:LYS:HD3	1.81	0.45
1:B:68:LEU:HD22	1:B:71:ALA:HB2	1.99	0.45
1:B:282:ASN:HB3	1:B:346:LEU:CD1	2.43	0.45
1:A:27:VAL:O	1:A:31:GLY:N	2.46	0.45
1:A:50:ALA:O	1:A:53:ILE:CD1	2.65	0.45
1:A:92:VAL:CG2	1:A:150:LEU:HB2	2.46	0.45
1:A:250:ALA:O	1:A:251:ALA:O	2.34	0.45
1:A:266:VAL:CG2	1:A:407:TYR:CE2	2.99	0.45
1:A:318:ALA:HB2	1:A:381:LEU:HD22	1.98	0.45
1:A:320:VAL:O	1:A:321:GLY:C	2.55	0.45
1:A:360:LEU:CD2	1:A:423:LYS:CB	2.94	0.45
1:A:385:LYS:O	1:A:387:MET:N	2.50	0.45
1:A:96:LEU:O	1:A:99:ALA:N	2.50	0.45
1:A:374:GLN:HG3	1:A:436:ALA:HB3	1.98	0.45
1:B:82:ALA:HB3	1:B:308:GLU:HG3	1.99	0.45
1:B:92:VAL:CG2	1:B:150:LEU:HB2	2.47	0.45
1:B:216:VAL:HG22	1:B:225:LYS:HE3	1.99	0.45
1:B:374:GLN:HB2	1:B:437:ALA:HB2	1.98	0.45
1:A:18:LEU:O	1:A:21:PRO:CD	2.62	0.45
1:A:113:THR:HG23	1:A:114:GLN:OE1	2.17	0.45
1:A:150:LEU:O	1:A:154:THR:HG22	2.17	0.45
1:A:182:VAL:O	1:A:190:GLU:O	2.35	0.45
1:A:237:GLU:HA	1:A:240:ARG:CB	2.47	0.45
1:A:273:VAL:O	1:A:274:VAL:C	2.54	0.45
1:A:305:LYS:HG3	1:A:311:THR:CG2	2.47	0.45
1:A:311:THR:C	1:A:312:LYS:HZ3	2.20	0.45
1:A:382:ARG:N	1:A:382:ARG:CD	2.79	0.45
1:B:24:ILE:O	1:B:27:VAL:HB	2.17	0.45
1:B:46:ILE:O	1:B:48:MET:N	2.48	0.45
1:B:55:ALA:O	1:B:59:LEU:HD22	2.17	0.45
1:B:92:VAL:O	1:B:95:GLY:N	2.50	0.45
1:B:166:ILE:CB	1:B:210:LEU:HG	2.47	0.45
1:B:277:HIS:O	1:B:278:GLN:C	2.56	0.45
1:B:339:PHE:O	1:B:343:ILE:CG1	2.64	0.45
1:B:340:ARG:HA	1:B:361:LEU:HD22	1.98	0.45
1:B:410:GLY:CA	1:B:425:PHE:CB	2.80	0.45
1:B:427:LEU:HD23	1:B:428:GLY:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:11:GLU:O	1:A:15:LEU:HB3	2.17	0.45
1:A:316:ILE:HB	1:A:317:ALA:H	1.62	0.45
1:A:382:ARG:HB3	1:A:391:PHE:CD1	2.52	0.45
1:B:196:CYS:SG	1:B:197:GLY:N	2.89	0.45
1:B:320:VAL:O	1:B:321:GLY:C	2.56	0.45
1:B:377:ALA:HA	1:B:381:LEU:HD12	1.99	0.45
1:B:387:MET:CB	1:B:443:ARG:NH1	2.80	0.45
1:A:33:GLY:O	1:A:37:THR:CB	2.65	0.44
1:A:72:LEU:HB3	1:A:248:VAL:HG11	1.97	0.44
1:A:72:LEU:O	1:A:73:VAL:C	2.54	0.44
1:A:126:MET:HE2	1:A:191:LEU:HD23	1.98	0.44
1:A:179:TRP:CE3	1:A:184:GLY:HA3	2.52	0.44
1:A:418:GLN:CG	1:A:421:GLY:HA2	2.43	0.44
1:B:31:GLY:O	1:B:32:MET:C	2.53	0.44
1:B:58:TRP:O	1:B:61:SER:HB3	2.17	0.44
1:B:68:LEU:CD1	1:B:71:ALA:HB3	2.34	0.44
1:B:418:GLN:CG	1:B:421:GLY:HA2	2.44	0.44
1:A:49:ALA:O	1:A:53:ILE:HG13	2.17	0.44
1:A:356:LEU:HD21	1:A:420:LEU:CG	2.44	0.44
1:A:443:ARG:O	1:A:443:ARG:CG	2.65	0.44
1:B:360:LEU:HD21	1:B:423:LYS:CA	2.47	0.44
1:A:76:VAL:C	1:A:78:GLN:N	2.68	0.44
1:A:299:SER:O	1:A:302:VAL:HG12	2.18	0.44
1:A:318:ALA:HA	1:A:381:LEU:HD11	1.99	0.44
1:A:386:ASP:O	1:A:389:ALA:N	2.50	0.44
1:A:403:LEU:HB2	1:A:404:PRO:CD	2.47	0.44
1:A:443:ARG:O	1:A:443:ARG:CD	2.64	0.44
1:B:101:LEU:O	1:B:105:PRO:CD	2.65	0.44
1:B:141:VAL:O	1:B:142:PRO:C	2.53	0.44
1:B:161:LYS:N	1:B:162:PRO:HD2	2.32	0.44
1:B:198:VAL:O	1:B:199:ALA:C	2.56	0.44
1:B:282:ASN:O	1:B:286:LEU:HD13	2.18	0.44
1:B:295:GLY:O	1:B:380:SER:HB2	2.17	0.44
1:A:53:ILE:HA	1:A:56:SER:HB3	1.99	0.44
1:A:69:LEU:C	1:A:69:LEU:CD2	2.85	0.44
1:A:101:LEU:O	1:A:105:PRO:CD	2.65	0.44
1:A:131:VAL:O	1:A:135:HIS:CG	2.71	0.44
1:A:216:VAL:HG22	1:A:225:LYS:HE3	2.00	0.44
1:A:403:LEU:O	1:A:404:PRO:C	2.55	0.44
1:B:130:THR:OG1	1:B:131:VAL:N	2.50	0.44
1:B:250:ALA:O	1:B:254:PHE:CB	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:373:VAL:HG13	1:B:437:ALA:HB2	1.99	0.44
1:B:406:GLY:CA	1:B:428:GLY:HA3	2.48	0.44
1:A:65:GLY:HA2	1:A:253:PHE:CD2	2.52	0.44
1:A:214:TYR:CZ	1:A:219:LYS:HE3	2.53	0.44
1:A:245:GLY:O	1:A:248:VAL:HG22	2.17	0.44
1:A:324:THR:O	1:A:327:ALA:N	2.50	0.44
1:A:411:MET:C	1:A:414:TRP:HB2	2.37	0.44
1:B:23:LEU:C	1:B:23:LEU:HD13	2.38	0.44
1:B:78:GLN:O	1:B:80:ASN:N	2.40	0.44
1:B:351:GLN:O	1:B:354:VAL:HG23	2.17	0.44
1:B:367:TYR:CB	1:B:430:ILE:HD11	2.47	0.44
1:B:382:ARG:HH21	1:B:444:LEU:CA	2.29	0.44
1:B:439:MET:CE	1:B:442:GLN:NE2	2.80	0.44
1:A:94:GLN:CB	1:A:238:LEU:HD11	2.24	0.44
1:A:96:LEU:C	1:A:96:LEU:CD2	2.85	0.44
1:A:117:ILE:N	1:A:117:ILE:CD1	2.76	0.44
1:A:181:PHE:HB2	1:A:198:VAL:HG11	1.98	0.44
1:B:19:ALA:O	1:B:20:THR:C	2.56	0.44
1:B:63:LEU:O	1:B:64:PHE:C	2.56	0.44
1:B:68:LEU:O	1:B:248:VAL:HG21	2.18	0.44
1:B:161:LYS:HD3	1:B:214:TYR:OH	2.18	0.44
1:B:238:LEU:O	1:B:242:PHE:CB	2.59	0.44
1:B:318:ALA:O	1:B:322:LEU:HG	2.18	0.44
1:B:395:PHE:O	1:B:398:TYR:HB3	2.18	0.44
1:A:39:MET:SD	1:A:39:MET:C	2.96	0.44
1:A:234:GLN:O	1:A:238:LEU:N	2.51	0.44
1:A:280:ALA:O	1:A:284:SER:HB2	2.18	0.44
1:A:302:VAL:O	1:A:302:VAL:HG22	2.17	0.44
1:A:351:GLN:CD	1:A:352:VAL:N	2.71	0.44
1:A:374:GLN:HG3	1:A:436:ALA:CB	2.48	0.44
1:A:423:LYS:CG	1:A:424:GLY:N	2.80	0.44
1:A:447:LEU:HD13	1:A:450:GLN:HE22	1.77	0.44
1:B:91:GLU:O	1:B:94:GLN:HB2	2.17	0.44
1:B:366:ILE:HD13	1:B:366:ILE:HA	1.77	0.44
1:B:377:ALA:O	1:B:378:ALA:O	2.36	0.44
1:B:399:TRP:CE3	1:B:400:VAL:N	2.86	0.44
1:A:116:ILE:C	1:A:117:ILE:HD12	2.38	0.44
1:A:392:HIS:O	1:A:395:PHE:N	2.50	0.44
1:A:408:ILE:HG12	1:A:411:MET:SD	2.58	0.44
1:A:438:LEU:O	1:A:438:LEU:HD23	2.18	0.44
1:B:10:LYS:HG3	1:B:301:ARG:HH21	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:123:GLU:CG	1:B:127:ALA:HB3	2.48	0.44
1:B:140:ALA:O	1:B:143:ALA:HB3	2.17	0.44
1:B:354:VAL:O	1:B:358:MET:HB2	2.16	0.44
1:B:378:ALA:CB	1:B:440:LEU:HG	2.41	0.44
1:B:398:TYR:OH	1:B:429:PHE:HE1	2.00	0.44
1:B:411:MET:C	1:B:414:TRP:HB2	2.38	0.44
1:A:121:ASP:O	1:A:122:VAL:HG13	2.18	0.44
1:A:411:MET:O	1:A:414:TRP:CB	2.61	0.44
1:B:5:VAL:HA	1:B:8:TYR:OH	2.16	0.44
1:B:10:LYS:HE2	1:B:305:LYS:HZ1	1.83	0.44
1:B:14:ASN:CB	1:B:301:ARG:HG3	2.41	0.44
1:B:162:PRO:CA	1:B:165:VAL:CG1	2.91	0.44
1:B:273:VAL:C	1:B:275:ALA:N	2.71	0.44
1:B:312:LYS:NZ	1:B:449:LYS:CD	2.81	0.44
1:B:344:ALA:HB2	1:B:361:LEU:CD1	2.46	0.44
1:B:363:PHE:CE2	1:B:426:TRP:C	2.91	0.44
1:A:7:ARG:O	1:A:8:TYR:C	2.56	0.43
1:A:69:LEU:CA	1:A:248:VAL:CG2	2.87	0.43
1:A:92:VAL:O	1:A:93:HIS:C	2.56	0.43
1:A:198:VAL:O	1:A:199:ALA:C	2.53	0.43
1:B:8:TYR:O	1:B:12:ALA:HB2	2.18	0.43
1:B:385:LYS:CA	1:B:387:MET:SD	3.06	0.43
1:B:416:THR:O	1:B:417:GLU:HG2	2.18	0.43
1:A:56:SER:O	1:A:59:LEU:HB2	2.18	0.43
1:A:98:LEU:HD12	1:A:98:LEU:O	2.18	0.43
1:A:133:TYR:C	1:A:135:HIS:N	2.69	0.43
1:A:215:ILE:HG23	1:A:216:VAL:CG2	2.47	0.43
1:A:399:TRP:CE3	1:A:400:VAL:N	2.86	0.43
1:A:403:LEU:CB	1:A:404:PRO:HD3	2.49	0.43
1:B:147:PHE:CE2	1:B:211:LEU:HA	2.53	0.43
1:B:234:GLN:C	1:B:237:GLU:H	2.22	0.43
1:B:302:VAL:HB	1:B:317:ALA:CB	2.48	0.43
1:B:364:ALA:O	1:B:365:ALA:C	2.54	0.43
1:A:93:HIS:HE2	1:A:225:LYS:HB2	1.83	0.43
1:A:126:MET:O	1:A:128:THR:N	2.51	0.43
1:A:210:LEU:H	1:A:210:LEU:CD2	2.27	0.43
1:A:247:PRO:CB	1:A:389:ALA:HA	2.45	0.43
1:A:283:PHE:O	1:A:286:LEU:N	2.49	0.43
1:A:382:ARG:NH2	1:A:443:ARG:O	2.46	0.43
1:A:387:MET:HB3	1:A:443:ARG:NH1	2.32	0.43
1:A:392:HIS:HA	1:A:395:PHE:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:131:VAL:HB	1:B:135:HIS:NE2	2.34	0.43
1:B:141:VAL:HG22	1:B:207:MET:CE	2.48	0.43
1:A:31:GLY:C	1:A:33:GLY:N	2.71	0.43
1:A:151:ARG:CG	1:A:162:PRO:HG2	2.45	0.43
1:A:165:VAL:HG13	1:A:166:ILE:HG22	2.01	0.43
1:A:175:ILE:O	1:A:176:PRO:C	2.56	0.43
1:A:204:TYR:HA	1:A:207:MET:SD	2.58	0.43
1:A:353:VAL:HB	1:A:357:ALA:HB2	1.99	0.43
1:B:128:THR:O	1:B:132:GLY:N	2.47	0.43
1:B:183:TYR:HB3	1:B:184:GLY:H	1.38	0.43
1:B:287:VAL:CG1	1:B:368:GLN:HG2	2.39	0.43
1:B:301:ARG:NH2	1:B:316:ILE:HG21	2.34	0.43
1:B:369:CYS:O	1:B:372:ALA:HB3	2.19	0.43
1:A:22:VAL:O	1:A:25:ALA:N	2.51	0.43
1:A:174:ASN:HB3	1:A:178:ASN:HD21	1.81	0.43
1:A:231:HIS:C	1:A:235:PRO:CG	2.78	0.43
1:A:382:ARG:HH21	1:A:444:LEU:CA	2.28	0.43
1:A:413:ASN:ND2	1:A:414:TRP:CE3	2.86	0.43
1:B:117:ILE:N	1:B:117:ILE:CD1	2.73	0.43
1:B:234:GLN:HA	1:B:237:GLU:HB3	2.00	0.43
1:B:450:GLN:HB2	1:B:451:SER:H	1.50	0.43
1:A:29:GLN:O	1:A:32:MET:HE2	2.18	0.43
1:A:403:LEU:HA	1:A:403:LEU:HD23	1.58	0.43
1:A:436:ALA:O	1:A:440:LEU:HD23	2.18	0.43
1:B:161:LYS:C	1:B:163:ALA:N	2.72	0.43
1:A:131:VAL:CA	1:A:135:HIS:CD2	3.01	0.43
1:A:141:VAL:O	1:A:144:TYR:HB3	2.18	0.43
1:A:276:ALA:CA	1:A:426:TRP:HE1	2.32	0.43
1:A:360:LEU:CD2	1:A:423:LYS:HA	2.49	0.43
1:B:150:LEU:O	1:B:154:THR:HG22	2.19	0.43
1:B:256:VAL:CG1	1:B:257:THR:N	2.82	0.43
1:B:392:HIS:O	1:B:395:PHE:HB2	2.18	0.43
1:A:13:SER:O	1:A:14:ASN:C	2.56	0.43
1:A:84:ARG:HB3	1:A:87:LYS:HD2	2.00	0.43
1:A:113:THR:HG23	1:A:114:GLN:N	2.34	0.43
1:A:165:VAL:CG1	1:A:166:ILE:N	2.36	0.43
1:A:407:TYR:HA	1:A:425:PHE:HB2	2.01	0.43
1:B:11:GLU:CA	1:B:301:ARG:HH22	2.32	0.43
1:B:72:LEU:HB3	1:B:248:VAL:HG11	1.95	0.43
1:B:77:ALA:HB2	1:B:154:THR:CB	2.48	0.43
1:B:181:PHE:CD2	1:B:198:VAL:HG21	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:232:LYS:HB3	1:B:233:PRO:CD	2.40	0.43
1:B:318:ALA:HA	1:B:381:LEU:CD1	2.48	0.43
1:B:409:LEU:C	1:B:411:MET:N	2.65	0.43
1:A:3:ASN:O	1:A:5:VAL:N	2.46	0.43
1:A:65:GLY:HA2	1:A:253:PHE:CB	2.48	0.43
1:A:104:VAL:O	1:A:107:ILE:N	2.52	0.43
1:A:137:VAL:C	1:A:139:PHE:H	2.22	0.43
1:A:381:LEU:HA	1:A:381:LEU:HD23	1.80	0.43
1:B:14:ASN:O	1:B:18:LEU:HG	2.18	0.43
1:B:65:GLY:HA2	1:B:253:PHE:CD2	2.52	0.43
1:B:76:VAL:O	1:B:78:GLN:HG2	2.19	0.43
1:B:96:LEU:HA	1:B:99:ALA:HB2	2.01	0.43
1:B:147:PHE:CD1	1:B:148:GLN:N	2.87	0.43
1:B:445:TYR:O	1:B:446:TRP:CB	2.66	0.43
1:A:40:ALA:O	1:A:44:SER:HB2	2.19	0.43
1:A:88:ILE:CG1	1:A:89:PRO:N	2.82	0.43
1:A:138:ILE:O	1:A:138:ILE:HG23	2.18	0.43
1:A:234:GLN:CA	1:A:237:GLU:HB3	2.48	0.43
1:A:257:THR:HG22	1:A:258:LEU:N	2.32	0.43
1:A:302:VAL:HB	1:A:317:ALA:CB	2.49	0.43
1:A:373:VAL:CG1	1:A:374:GLN:N	2.79	0.43
1:B:92:VAL:HG21	1:B:150:LEU:CD2	2.33	0.43
1:B:258:LEU:HD13	1:B:399:TRP:CD2	2.52	0.43
1:B:403:LEU:HD23	1:B:403:LEU:HA	1.65	0.43
1:A:50:ALA:C	1:A:52:SER:N	2.72	0.42
1:A:62:ILE:CD1	1:A:63:LEU:N	2.81	0.42
1:A:166:ILE:HG13	1:A:207:MET:HA	2.01	0.42
1:A:332:THR:HA	1:A:335:LEU:CD2	2.49	0.42
1:A:340:ARG:CG	1:A:341:GLU:H	2.12	0.42
1:B:66:VAL:O	1:B:69:LEU:CB	2.62	0.42
1:B:92:VAL:O	1:B:93:HIS:C	2.57	0.42
1:B:283:PHE:O	1:B:286:LEU:N	2.51	0.42
1:B:392:HIS:O	1:B:395:PHE:HB3	2.19	0.42
1:A:24:ILE:HG21	1:A:164:MET:CE	2.49	0.42
1:A:125:ALA:O	1:A:126:MET:O	2.37	0.42
1:A:185:LYS:H	1:A:189:PRO:HB3	1.84	0.42
1:A:318:ALA:CA	1:A:381:LEU:CD2	2.96	0.42
1:A:338:LEU:C	1:A:338:LEU:HD12	2.39	0.42
1:A:375:VAL:O	1:A:376:VAL:C	2.58	0.42
1:B:215:ILE:HG23	1:B:216:VAL:CG2	2.42	0.42
1:B:222:ALA:CA	1:B:224:VAL:HG13	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:284:SER:CA	1:B:287:VAL:HG23	2.49	0.42
1:A:7:ARG:O	1:A:11:GLU:N	2.51	0.42
1:A:18:LEU:HD13	1:A:300:ILE:CG1	2.49	0.42
1:A:51:VAL:HA	1:A:54:ALA:HB2	2.00	0.42
1:A:111:PHE:O	1:A:115:PHE:HB2	2.18	0.42
1:A:315:ALA:O	1:A:316:ILE:O	2.38	0.42
1:A:351:GLN:HE21	1:A:354:VAL:HG12	1.85	0.42
1:A:367:TYR:N	1:A:430:ILE:HD11	2.33	0.42
1:B:111:PHE:O	1:B:115:PHE:HB2	2.19	0.42
1:B:124:GLU:O	1:B:128:THR:OG1	2.37	0.42
1:B:137:VAL:C	1:B:139:PHE:H	2.20	0.42
1:B:262:VAL:HG12	1:B:263:ALA:N	2.33	0.42
1:B:296:ALA:HA	1:B:299:SER:HB3	2.02	0.42
1:B:352:VAL:HG22	1:B:353:VAL:CG2	2.30	0.42
1:A:38:ILE:O	1:A:39:MET:C	2.57	0.42
1:A:141:VAL:O	1:A:142:PRO:C	2.56	0.42
1:A:244:LEU:HD21	1:A:388:THR:HG21	2.01	0.42
1:A:378:ALA:O	1:A:380:SER:N	2.52	0.42
1:A:392:HIS:O	1:A:395:PHE:HB3	2.19	0.42
1:A:407:TYR:C	1:A:409:LEU:H	2.22	0.42
1:B:84:ARG:O	1:B:86:HIS:O	2.37	0.42
1:B:221:LEU:HB3	1:B:222:ALA:H	1.56	0.42
1:B:257:THR:HG22	1:B:258:LEU:N	2.33	0.42
1:B:291:PRO:HB3	1:B:372:ALA:HA	2.01	0.42
1:B:351:GLN:O	1:B:354:VAL:CB	2.67	0.42
1:A:76:VAL:O	1:A:78:GLN:HG2	2.20	0.42
1:A:262:VAL:O	1:A:263:ALA:C	2.57	0.42
1:A:447:LEU:CD1	1:A:450:GLN:HE21	2.31	0.42
1:A:450:GLN:HB2	1:A:451:SER:H	1.52	0.42
1:B:17:LYS:O	1:B:21:PRO:HD2	2.20	0.42
1:B:82:ALA:HB2	1:B:308:GLU:OE1	2.20	0.42
1:B:165:VAL:CG1	1:B:166:ILE:HG22	2.47	0.42
1:B:351:GLN:CD	1:B:352:VAL:N	2.73	0.42
1:B:410:GLY:CA	1:B:425:PHE:CA	2.98	0.42
1:A:91:GLU:OE1	1:A:91:GLU:CA	2.67	0.42
1:A:170:GLY:O	1:A:171:LEU:C	2.58	0.42
1:A:248:VAL:O	1:A:249:ALA:C	2.58	0.42
1:A:353:VAL:CB	1:A:357:ALA:HB2	2.50	0.42
1:A:412:THR:HG23	1:A:417:GLU:H	1.85	0.42
1:A:418:GLN:O	1:A:420:LEU:N	2.51	0.42
1:B:4:SER:CA	1:B:7:ARG:HB2	2.24	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:10:LYS:HE2	1:B:305:LYS:HZ2	1.84	0.42
1:B:206:ILE:O	1:B:209:LEU:HB3	2.20	0.42
1:B:279:VAL:HG21	1:B:357:ALA:HA	2.02	0.42
1:B:298:VAL:O	1:B:299:SER:C	2.57	0.42
1:B:454:VAL:HA	1:B:457:HIS:HB2	2.02	0.42
1:A:53:ILE:HD12	1:A:53:ILE:C	2.38	0.42
1:A:68:LEU:HD22	1:A:71:ALA:HB2	2.00	0.42
1:A:92:VAL:HG12	1:A:93:HIS:N	2.35	0.42
1:A:371:ASP:N	1:A:433:LEU:HD23	2.34	0.42
1:A:395:PHE:O	1:A:398:TYR:N	2.52	0.42
1:A:398:TYR:CD2	1:A:432:GLY:C	2.93	0.42
1:A:415:LEU:HB3	1:A:416:THR:H	1.68	0.42
1:B:53:ILE:CA	1:B:56:SER:HB3	2.50	0.42
1:B:84:ARG:HB3	1:B:87:LYS:HD2	2.02	0.42
1:B:264:LEU:O	1:B:265:LEU:C	2.57	0.42
1:B:275:ALA:N	1:B:353:VAL:HG21	2.35	0.42
1:B:299:SER:O	1:B:302:VAL:HG12	2.20	0.42
1:B:351:GLN:NE2	1:B:353:VAL:C	2.71	0.42
1:B:412:THR:O	1:B:415:LEU:C	2.56	0.42
1:B:425:PHE:CD2	1:B:425:PHE:C	2.93	0.42
1:A:7:ARG:HB3	1:A:11:GLU:CD	2.40	0.42
1:A:11:GLU:O	1:A:15:LEU:CB	2.68	0.42
1:A:22:VAL:O	1:A:23:LEU:C	2.58	0.42
1:A:88:ILE:CG1	1:A:89:PRO:HD3	2.39	0.42
1:A:232:LYS:N	1:A:235:PRO:CD	2.83	0.42
1:A:245:GLY:C	1:A:248:VAL:HG22	2.39	0.42
1:A:448:GLN:CA	1:A:448:GLN:OE1	2.67	0.42
1:B:8:TYR:N	1:B:11:GLU:OE1	2.53	0.42
1:B:166:ILE:CA	1:B:210:LEU:HG	2.50	0.42
1:B:219:LYS:HE2	1:B:220:ARG:HD2	2.02	0.42
1:B:358:MET:O	1:B:361:LEU:HB2	2.20	0.42
1:B:360:LEU:O	1:B:363:PHE:N	2.52	0.42
1:B:403:LEU:O	1:B:407:TYR:N	2.46	0.42
1:B:412:THR:HA	1:B:415:LEU:HB3	2.01	0.42
1:A:4:SER:CA	1:A:7:ARG:HB2	2.29	0.42
1:A:72:LEU:HD13	1:A:75:VAL:HG21	2.00	0.42
1:A:165:VAL:O	1:A:167:GLY:N	2.52	0.42
1:A:180:ILE:HD11	1:A:185:LYS:O	2.19	0.42
1:A:279:VAL:CG1	1:A:280:ALA:N	2.67	0.42
1:A:326:LEU:O	1:A:327:ALA:C	2.58	0.42
1:A:339:PHE:O	1:A:343:ILE:HB	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:351:GLN:O	1:A:352:VAL:C	2.58	0.42
1:A:436:ALA:O	1:A:439:MET:N	2.53	0.42
1:B:129:LYS:HA	1:B:129:LYS:HD2	1.80	0.42
1:B:136:ALA:CA	1:B:139:PHE:CD2	2.99	0.42
1:B:232:LYS:CA	1:B:235:PRO:HD2	2.50	0.42
1:B:338:LEU:HG	1:B:339:PHE:N	2.34	0.42
1:B:395:PHE:O	1:B:398:TYR:N	2.53	0.42
1:B:445:TYR:O	1:B:446:TRP:HB2	2.18	0.42
1:A:117:ILE:CG2	1:A:118:ARG:N	2.63	0.42
1:A:179:TRP:HH2	1:A:186:PHE:CD1	2.37	0.42
1:A:232:LYS:CA	1:A:235:PRO:HD2	2.49	0.42
1:A:253:PHE:O	1:A:256:VAL:HB	2.20	0.42
1:A:371:ASP:O	1:A:375:VAL:HG23	2.20	0.42
1:A:400:VAL:HA	1:A:404:PRO:HG2	2.02	0.42
1:B:42:GLY:C	1:B:44:SER:H	2.22	0.42
1:B:146:LEU:O	1:B:149:ALA:CB	2.62	0.42
1:B:170:GLY:O	1:B:171:LEU:C	2.57	0.42
1:B:231:HIS:CB	1:B:235:PRO:HD3	2.45	0.42
1:B:371:ASP:N	1:B:433:LEU:HD23	2.35	0.42
1:B:407:TYR:C	1:B:409:LEU:H	2.22	0.42
1:A:118:ARG:HG3	1:A:118:ARG:NH1	2.32	0.41
1:B:16:ILE:O	1:B:16:ILE:HG12	2.20	0.41
1:B:178:ASN:O	1:B:179:TRP:C	2.56	0.41
1:B:200:THR:CA	1:B:203:VAL:HB	2.50	0.41
1:B:296:ALA:O	1:B:297:ALA:C	2.58	0.41
1:B:329:ALA:HB2	1:B:372:ALA:HB2	2.02	0.41
1:B:407:TYR:O	1:B:411:MET:N	2.45	0.41
1:A:351:GLN:C	1:A:354:VAL:HB	2.40	0.41
1:A:386:ASP:C	1:A:388:THR:N	2.73	0.41
1:B:33:GLY:O	1:B:37:THR:CB	2.68	0.41
1:B:114:GLN:CA	1:B:128:THR:HG23	2.50	0.41
1:B:116:ILE:HG23	1:B:117:ILE:O	2.20	0.41
1:B:216:VAL:HG22	1:B:225:LYS:CE	2.50	0.41
1:A:27:VAL:O	1:A:31:GLY:CA	2.68	0.41
1:A:53:ILE:CA	1:A:56:SER:HB3	2.49	0.41
1:A:94:GLN:HE22	1:A:231:HIS:HB2	1.85	0.41
1:A:131:VAL:HB	1:A:135:HIS:ND1	2.33	0.41
1:A:196:CYS:HA	1:A:199:ALA:HB2	2.01	0.41
1:A:341:GLU:O	1:A:345:LEU:HG	2.19	0.41
1:A:362:LEU:O	1:A:363:PHE:C	2.57	0.41
1:A:377:ALA:HA	1:A:381:LEU:HD12	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:381:LEU:HB2	1:A:382:ARG:HH11	1.86	0.41
1:B:133:TYR:C	1:B:135:HIS:N	2.72	0.41
1:B:212:LEU:O	1:B:215:ILE:HG22	2.20	0.41
1:B:221:LEU:HD12	1:B:221:LEU:N	2.35	0.41
1:B:326:LEU:CD1	1:B:326:LEU:C	2.89	0.41
1:A:12:ALA:HA	1:A:15:LEU:HD21	2.02	0.41
1:A:96:LEU:HA	1:A:99:ALA:HB2	2.02	0.41
1:A:157:MET:O	1:A:158:SER:HB3	2.21	0.41
1:A:182:VAL:HG22	1:A:195:GLY:C	2.41	0.41
1:A:219:LYS:HD3	1:A:220:ARG:NE	2.36	0.41
1:A:221:LEU:O	1:A:222:ALA:HB2	2.20	0.41
1:A:294:ILE:O	1:A:295:GLY:C	2.59	0.41
1:A:338:LEU:HD12	1:A:338:LEU:O	2.21	0.41
1:A:341:GLU:CD	1:A:342:GLN:H	2.21	0.41
1:A:386:ASP:OD1	1:A:456:LEU:CD2	2.67	0.41
1:A:408:ILE:HA	1:A:411:MET:SD	2.61	0.41
1:A:452:ASP:N	1:A:452:ASP:OD2	2.52	0.41
1:B:31:GLY:O	1:B:33:GLY:N	2.54	0.41
1:B:56:SER:O	1:B:60:PRO:CD	2.68	0.41
1:B:211:LEU:CG	1:B:212:LEU:N	2.82	0.41
1:B:248:VAL:O	1:B:249:ALA:C	2.59	0.41
1:B:315:ALA:O	1:B:316:ILE:O	2.38	0.41
1:B:448:GLN:HB3	1:B:449:LYS:H	1.72	0.41
1:A:21:PRO:HG2	1:A:160:THR:HG23	2.03	0.41
1:A:59:LEU:HD23	1:A:114:GLN:OE1	2.20	0.41
1:A:145:LEU:HD22	1:A:148:GLN:NE2	2.36	0.41
1:A:181:PHE:CD2	1:A:198:VAL:HG21	2.55	0.41
1:A:219:LYS:HD3	1:A:220:ARG:HE	1.85	0.41
1:A:275:ALA:N	1:A:353:VAL:HG21	2.35	0.41
1:B:50:ALA:C	1:B:52:SER:N	2.74	0.41
1:B:54:ALA:O	1:B:57:ILE:N	2.53	0.41
1:B:113:THR:HG23	1:B:114:GLN:OE1	2.20	0.41
1:B:144:TYR:O	1:B:146:LEU:N	2.54	0.41
1:B:335:LEU:HD12	1:B:335:LEU:C	2.40	0.41
1:B:345:LEU:O	1:B:346:LEU:O	2.38	0.41
1:A:202:ILE:O	1:A:205:TRP:HB3	2.21	0.41
1:A:284:SER:CA	1:A:287:VAL:HG23	2.47	0.41
1:A:298:VAL:O	1:A:299:SER:C	2.58	0.41
1:B:11:GLU:HA	1:B:301:ARG:HH22	1.85	0.41
1:B:72:LEU:O	1:B:72:LEU:HD13	2.20	0.41
1:B:72:LEU:HD21	1:B:383:GLY:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:209:LEU:HD13	1:B:209:LEU:C	2.41	0.41
1:B:239:ILE:C	1:B:243:ARG:H	2.22	0.41
1:B:408:ILE:HG12	1:B:411:MET:SD	2.61	0.41
1:A:10:LYS:HE2	1:A:305:LYS:HZ1	1.82	0.41
1:A:350:ASN:ND2	1:A:351:GLN:N	2.69	0.41
1:A:374:GLN:O	1:A:378:ALA:CB	2.69	0.41
1:A:400:VAL:O	1:A:404:PRO:HB2	2.21	0.41
1:B:19:ALA:O	1:B:22:VAL:CG2	2.67	0.41
1:B:105:PRO:O	1:B:108:ALA:HB3	2.20	0.41
1:B:118:ARG:CG	1:B:118:ARG:NH1	2.82	0.41
1:B:118:ARG:C	1:B:118:ARG:NE	2.74	0.41
1:B:145:LEU:HA	1:B:148:GLN:HE21	1.86	0.41
1:B:452:ASP:OD2	1:B:452:ASP:N	2.54	0.41
1:A:136:ALA:O	1:A:139:PHE:HB2	2.21	0.41
1:A:378:ALA:CB	1:A:440:LEU:HG	2.37	0.41
1:B:270:GLY:O	1:B:273:VAL:HG12	2.20	0.41
1:B:298:VAL:HG21	1:B:321:GLY:HA3	2.03	0.41
1:B:445:TYR:O	1:B:448:GLN:N	2.54	0.41
1:A:11:GLU:HG2	1:A:320:VAL:HB	2.02	0.41
1:A:29:GLN:HA	1:A:32:MET:HE2	2.03	0.41
1:A:68:LEU:HD13	1:A:68:LEU:O	2.21	0.41
1:A:86:HIS:C	1:A:87:LYS:HG3	2.41	0.41
1:A:126:MET:O	1:A:127:ALA:C	2.59	0.41
1:A:180:ILE:CG2	1:A:181:PHE:H	2.32	0.41
1:A:206:ILE:O	1:A:210:LEU:HD22	2.21	0.41
1:A:222:ALA:CA	1:A:224:VAL:HG13	2.51	0.41
1:A:298:VAL:CG1	1:A:381:LEU:CD2	2.98	0.41
1:A:382:ARG:HA	1:A:387:MET:CG	2.46	0.41
1:A:439:MET:HA	1:A:439:MET:HE2	2.02	0.41
1:B:62:ILE:C	1:B:62:ILE:CD1	2.83	0.41
1:B:90:PHE:O	1:B:91:GLU:C	2.57	0.41
1:B:110:LEU:HD22	1:B:114:GLN:HG3	2.02	0.41
1:B:146:LEU:HD13	1:B:146:LEU:C	2.41	0.41
1:B:206:ILE:O	1:B:207:MET:C	2.58	0.41
1:B:209:LEU:HD13	1:B:210:LEU:HD13	2.03	0.41
1:B:250:ALA:O	1:B:254:PHE:HB2	2.20	0.41
1:B:250:ALA:O	1:B:251:ALA:O	2.39	0.41
1:B:253:PHE:HA	1:B:256:VAL:HB	2.03	0.41
1:B:281:LEU:O	1:B:282:ASN:C	2.58	0.41
1:B:329:ALA:O	1:B:333:ALA:CB	2.64	0.41
1:B:336:THR:OG1	1:B:368:GLN:NE2	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:385:LYS:NZ	1:B:460:ALA:CB	2.84	0.41
1:B:453:ASP:O	1:B:456:LEU:HB2	2.20	0.41
1:A:11:GLU:O	1:A:15:LEU:CG	2.69	0.41
1:A:206:ILE:O	1:A:207:MET:C	2.58	0.41
1:A:212:LEU:CD1	1:A:216:VAL:HG21	2.45	0.41
1:A:340:ARG:CG	1:A:341:GLU:N	2.78	0.41
1:A:401:LEU:O	1:A:405:THR:CB	2.66	0.41
1:A:403:LEU:O	1:A:405:THR:N	2.54	0.41
1:B:249:ALA:O	1:B:250:ALA:C	2.58	0.41
1:B:266:VAL:HG21	1:B:425:PHE:CZ	2.56	0.41
1:B:283:PHE:O	1:B:287:VAL:HG23	2.21	0.41
1:B:332:THR:HA	1:B:335:LEU:HD23	2.02	0.41
1:B:367:TYR:N	1:B:430:ILE:HD11	2.35	0.41
1:B:410:GLY:O	1:B:414:TRP:CE3	2.74	0.41
1:B:456:LEU:O	1:B:460:ALA:HB3	2.20	0.41
1:A:313:GLY:O	1:A:314:ALA:C	2.58	0.40
1:A:387:MET:CB	1:A:443:ARG:NH1	2.84	0.40
1:A:406:GLY:HA3	1:A:428:GLY:C	2.41	0.40
1:B:281:LEU:C	1:B:281:LEU:CD2	2.89	0.40
1:B:282:ASN:HD22	1:B:282:ASN:HA	1.66	0.40
1:B:343:ILE:O	1:B:346:LEU:N	2.54	0.40
1:A:80:ASN:O	1:A:80:ASN:CG	2.59	0.40
1:A:233:PRO:N	1:A:235:PRO:HD2	2.36	0.40
1:A:282:ASN:O	1:A:286:LEU:HD13	2.21	0.40
1:B:56:SER:O	1:B:60:PRO:HD2	2.21	0.40
1:B:131:VAL:CA	1:B:135:HIS:CD2	3.04	0.40
1:B:185:LYS:CA	1:B:189:PRO:HD3	2.47	0.40
1:B:276:ALA:HA	1:B:360:LEU:HD12	2.00	0.40
1:B:370:MET:O	1:B:373:VAL:CG1	2.68	0.40
1:B:382:ARG:C	1:B:384:TYR:N	2.75	0.40
1:A:73:VAL:CB	1:A:74:PRO:CD	2.90	0.40
1:A:211:LEU:O	1:A:212:LEU:C	2.59	0.40
1:A:370:MET:O	1:A:373:VAL:CG1	2.69	0.40
1:A:376:VAL:O	1:A:377:ALA:C	2.58	0.40
1:B:11:GLU:O	1:B:15:LEU:HB3	2.21	0.40
1:B:68:LEU:CA	1:B:71:ALA:HB3	2.48	0.40
1:B:175:ILE:O	1:B:176:PRO:C	2.58	0.40
1:B:356:LEU:HD21	1:B:420:LEU:CG	2.52	0.40
1:B:427:LEU:O	1:B:430:ILE:N	2.53	0.40
1:A:88:ILE:CG1	1:A:89:PRO:CD	2.98	0.40
1:A:130:THR:OG1	1:A:131:VAL:N	2.53	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:345:LEU:O	1:A:346:LEU:O	2.40	0.40
1:B:42:GLY:HA2	1:B:49:ALA:HB3	2.03	0.40
1:B:65:GLY:O	1:B:67:GLY:N	2.54	0.40
1:B:104:VAL:CA	1:B:107:ILE:HG13	2.33	0.40
1:B:185:LYS:HB3	1:B:186:PHE:H	1.65	0.40
1:B:411:MET:O	1:B:414:TRP:CB	2.63	0.40
1:B:436:ALA:O	1:B:440:LEU:CD2	2.69	0.40
1:A:353:VAL:CG1	1:A:357:ALA:HA	2.48	0.40
1:B:18:LEU:O	1:B:21:PRO:CD	2.62	0.40
1:B:70:MET:O	1:B:71:ALA:C	2.59	0.40
1:B:125:ALA:O	1:B:126:MET:O	2.40	0.40
1:B:141:VAL:O	1:B:144:TYR:HB3	2.21	0.40
1:B:364:ALA:O	1:B:368:GLN:N	2.36	0.40
1:B:386:ASP:OD1	1:B:456:LEU:CD2	2.67	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	458/460 (100%)	239 (52%)	111 (24%)	108 (24%)	0	0
1	B	458/460 (100%)	244 (53%)	112 (24%)	102 (22%)	0	1
All	All	916/920 (100%)	483 (53%)	223 (24%)	210 (23%)	0	0

All (210) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	13	SER
1	A	15	LEU
1	A	35	VAL
1	A	40	ALA

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Mol	Chain	Res	Type
1	A	46	ILE
1	A	50	ALA
1	A	82	ALA
1	A	84	ARG
1	A	110	LEU
1	A	117	ILE
1	A	124	GLU
1	A	126	MET
1	A	128	THR
1	A	152	SER
1	A	158	SER
1	A	165	VAL
1	A	184	GLY
1	A	211	LEU
1	A	222	ALA
1	A	251	ALA
1	A	279	VAL
1	A	316	ILE
1	A	340	ARG
1	A	341	GLU
1	A	346	LEU
1	A	352	VAL
1	A	353	VAL
1	A	354	VAL
1	A	377	ALA
1	A	378	ALA
1	A	379	GLY
1	A	420	LEU
1	B	13	SER
1	B	19	ALA
1	B	35	VAL
1	B	40	ALA
1	B	46	ILE
1	B	50	ALA
1	B	71	ALA
1	B	82	ALA
1	B	84	ARG
1	B	110	LEU
1	B	117	ILE
1	B	124	GLU
1	B	126	MET
1	B	128	THR

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Mol	Chain	Res	Type
1	B	158	SER
1	B	165	VAL
1	B	184	GLY
1	B	211	LEU
1	B	221	LEU
1	B	222	ALA
1	B	226	VAL
1	B	251	ALA
1	B	279	VAL
1	B	316	ILE
1	B	340	ARG
1	B	341	GLU
1	B	346	LEU
1	B	352	VAL
1	B	353	VAL
1	B	354	VAL
1	B	377	ALA
1	B	378	ALA
1	B	379	GLY
1	B	386	ASP
1	B	420	LEU
1	A	9	LYS
1	A	19	ALA
1	A	31	GLY
1	A	37	THR
1	A	39	MET
1	A	49	ALA
1	A	54	ALA
1	A	64	PHE
1	A	70	MET
1	A	71	ALA
1	A	108	ALA
1	A	116	ILE
1	A	156	GLY
1	A	185	LYS
1	A	186	PHE
1	A	219	LYS
1	A	226	VAL
1	A	227	PHE
1	A	231	HIS
1	A	244	LEU
1	A	250	ALA

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Mol	Chain	Res	Type
1	A	263	ALA
1	A	273	VAL
1	A	275	ALA
1	A	281	LEU
1	A	318	ALA
1	A	375	VAL
1	A	386	ASP
1	A	402	GLY
1	A	415	LEU
1	A	416	THR
1	A	448	GLN
1	B	15	LEU
1	B	31	GLY
1	B	39	MET
1	B	49	ALA
1	B	54	ALA
1	B	70	MET
1	B	108	ALA
1	B	116	ILE
1	B	156	GLY
1	B	170	GLY
1	B	185	LYS
1	B	186	PHE
1	B	219	LYS
1	B	227	PHE
1	B	231	HIS
1	B	244	LEU
1	B	250	ALA
1	B	273	VAL
1	B	281	LEU
1	B	299	SER
1	B	318	ALA
1	B	375	VAL
1	B	402	GLY
1	B	415	LEU
1	A	162	PRO
1	A	170	GLY
1	A	213	PHE
1	A	221	LEU
1	A	230	PHE
1	A	232	LYS
1	A	277	HIS

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Mol	Chain	Res	Type
1	A	283	PHE
1	A	299	SER
1	A	308	GLU
1	A	315	ALA
1	A	345	LEU
1	A	389	ALA
1	A	403	LEU
1	A	447	LEU
1	B	9	LYS
1	B	37	THR
1	B	47	ASP
1	B	64	PHE
1	B	152	SER
1	B	191	LEU
1	B	213	PHE
1	B	224	VAL
1	B	230	PHE
1	B	232	LYS
1	B	263	ALA
1	B	272	THR
1	B	275	ALA
1	B	345	LEU
1	B	389	ALA
1	B	416	THR
1	B	448	GLN
1	A	14	ASN
1	A	29	GLN
1	A	32	MET
1	A	47	ASP
1	A	51	VAL
1	A	127	ALA
1	A	149	ALA
1	A	175	ILE
1	A	188	ALA
1	A	191	LEU
1	A	284	SER
1	A	414	TRP
1	A	445	TYR
1	B	51	VAL
1	B	162	PRO
1	B	163	ALA
1	B	282	ASN

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Mol	Chain	Res	Type
1	B	295	GLY
1	B	308	GLU
1	B	403	LEU
1	B	414	TRP
1	A	52	SER
1	A	60	PRO
1	A	101	LEU
1	A	261	VAL
1	A	282	ASN
1	A	295	GLY
1	B	32	MET
1	B	60	PRO
1	B	79	LEU
1	B	149	ALA
1	B	175	ILE
1	B	188	ALA
1	B	315	ALA
1	B	376	VAL
1	A	33	GLY
1	A	42	GLY
1	A	80	ASN
1	A	122	VAL
1	A	132	GLY
1	B	42	GLY
1	B	80	ASN
1	B	436	ALA
1	A	76	VAL
1	A	109	VAL
1	B	122	VAL
1	A	224	VAL
1	B	76	VAL
1	B	132	GLY
1	A	81	GLY
1	B	33	GLY
1	A	92	VAL
1	B	109	VAL
1	B	261	VAL
1	B	81	GLY

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	364/364 (100%)	267 (73%)	97 (27%)	0	3
1	B	364/364 (100%)	266 (73%)	98 (27%)	0	3
All	All	728/728 (100%)	533 (73%)	195 (27%)	0	3

All (195) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	3	ASN
1	A	16	ILE
1	A	32	MET
1	A	34	PHE
1	A	59	LEU
1	A	63	LEU
1	A	64	PHE
1	A	68	LEU
1	A	69	LEU
1	A	72	LEU
1	A	79	LEU
1	A	88	ILE
1	A	90	PHE
1	A	93	HIS
1	A	105	PRO
1	A	115	PHE
1	A	118	ARG
1	A	123	GLU
1	A	124	GLU
1	A	133	TYR
1	A	144	TYR
1	A	145	LEU
1	A	147	PHE
1	A	157	MET
1	A	159	LEU
1	A	164	MET
1	A	166	ILE

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Mol	Chain	Res	Type
1	A	171	LEU
1	A	172	LEU
1	A	180	ILE
1	A	183	TYR
1	A	196	CYS
1	A	198	VAL
1	A	204	TYR
1	A	208	LEU
1	A	211	LEU
1	A	213	PHE
1	A	214	TYR
1	A	219	LYS
1	A	227	PHE
1	A	230	PHE
1	A	231	HIS
1	A	235	PRO
1	A	237	GLU
1	A	241	LEU
1	A	242	PHE
1	A	244	LEU
1	A	255	GLU
1	A	256	VAL
1	A	257	THR
1	A	259	PHE
1	A	265	LEU
1	A	266	VAL
1	A	273	VAL
1	A	278	GLN
1	A	282	ASN
1	A	290	PHE
1	A	301	ARG
1	A	312	LYS
1	A	316	ILE
1	A	326	LEU
1	A	331	ILE
1	A	335	LEU
1	A	337	VAL
1	A	339	PHE
1	A	341	GLU
1	A	347	TYR
1	A	349	GLU
1	A	354	VAL

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Mol	Chain	Res	Type
1	A	363	PHE
1	A	369	CYS
1	A	374	GLN
1	A	376	VAL
1	A	384	TYR
1	A	385	LYS
1	A	386	ASP
1	A	387	MET
1	A	391	PHE
1	A	395	PHE
1	A	397	SER
1	A	398	TYR
1	A	400	VAL
1	A	407	TYR
1	A	409	LEU
1	A	413	ASN
1	A	414	TRP
1	A	415	LEU
1	A	417	GLU
1	A	420	LEU
1	A	426	TRP
1	A	427	LEU
1	A	429	PHE
1	A	447	LEU
1	A	448	GLN
1	A	449	LYS
1	A	450	GLN
1	A	455	GLN
1	B	2	GLU
1	B	16	ILE
1	B	32	MET
1	B	34	PHE
1	B	59	LEU
1	B	63	LEU
1	B	64	PHE
1	B	68	LEU
1	B	69	LEU
1	B	72	LEU
1	B	79	LEU
1	B	88	ILE
1	B	90	PHE
1	B	93	HIS

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Mol	Chain	Res	Type
1	B	115	PHE
1	B	118	ARG
1	B	123	GLU
1	B	124	GLU
1	B	144	TYR
1	B	145	LEU
1	B	147	PHE
1	B	157	MET
1	B	159	LEU
1	B	164	MET
1	B	166	ILE
1	B	171	LEU
1	B	172	LEU
1	B	180	ILE
1	B	183	TYR
1	B	196	CYS
1	B	198	VAL
1	B	204	TYR
1	B	208	LEU
1	B	211	LEU
1	B	213	PHE
1	B	214	TYR
1	B	219	LYS
1	B	227	PHE
1	B	230	PHE
1	B	231	HIS
1	B	235	PRO
1	B	237	GLU
1	B	241	LEU
1	B	242	PHE
1	B	244	LEU
1	B	255	GLU
1	B	256	VAL
1	B	257	THR
1	B	265	LEU
1	B	266	VAL
1	B	273	VAL
1	B	278	GLN
1	B	282	ASN
1	B	284	SER
1	B	290	PHE
1	B	301	ARG

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Mol	Chain	Res	Type
1	B	312	LYS
1	B	316	ILE
1	B	324	THR
1	B	326	LEU
1	B	331	ILE
1	B	335	LEU
1	B	337	VAL
1	B	339	PHE
1	B	341	GLU
1	B	347	TYR
1	B	349	GLU
1	B	354	VAL
1	B	363	PHE
1	B	369	CYS
1	B	374	GLN
1	B	376	VAL
1	B	384	TYR
1	B	385	LYS
1	B	386	ASP
1	B	387	MET
1	B	391	PHE
1	B	395	PHE
1	B	397	SER
1	B	398	TYR
1	B	400	VAL
1	B	404	PRO
1	B	407	TYR
1	B	409	LEU
1	B	413	ASN
1	B	414	TRP
1	B	415	LEU
1	B	417	GLU
1	B	420	LEU
1	B	426	TRP
1	B	427	LEU
1	B	429	PHE
1	B	446	TRP
1	B	447	LEU
1	B	448	GLN
1	B	449	LYS
1	B	450	GLN
1	B	455	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (30) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	78	GLN
1	A	85	GLN
1	A	86	HIS
1	A	135	HIS
1	A	148	GLN
1	A	174	ASN
1	A	223	HIS
1	A	277	HIS
1	A	350	ASN
1	A	351	GLN
1	A	413	ASN
1	A	418	GLN
1	A	442	GLN
1	A	450	GLN
1	A	455	GLN
1	A	457	HIS
1	B	14	ASN
1	B	78	GLN
1	B	85	GLN
1	B	135	HIS
1	B	148	GLN
1	B	174	ASN
1	B	277	HIS
1	B	350	ASN
1	B	351	GLN
1	B	418	GLN
1	B	442	GLN
1	B	450	GLN
1	B	455	GLN
1	B	457	HIS

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides 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 [i](#)

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

In the following table, the column labelled ‘#RSRZ > 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 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	460/460 (100%)	-0.56	4 (0%) 84 74	46, 126, 183, 286	0
1	B	460/460 (100%)	-0.58	6 (1%) 77 65	56, 130, 193, 270	0
All	All	920/920 (100%)	-0.57	10 (1%) 80 70	46, 129, 189, 286	0

All (10) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	120	MET	5.2
1	B	419	PRO	4.9
1	A	120	MET	3.6
1	B	309	GLN	2.4
1	A	304	HIS	2.3
1	B	115	PHE	2.3
1	B	125	ALA	2.2
1	B	124	GLU	2.1
1	A	309	GLN	2.0
1	A	3	ASN	2.0

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

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

6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.4 Ligands [i](#)

There are no ligands in this entry.

6.5 Other polymers [i](#)

There are no such residues in this entry.