Full wwPDB X-ray Structure Validation Report ⓘ

Jul 31, 2023 – 10:36 PM EDT

PDB ID	:	3TAT
Title	:	TYROSINE AMINOTRANSFERASE FROM E. COLI
Authors	:	Ko, T.P.; Yang, W.Z.; Wu, S.P.; Tsai, H.; Yuan, H.S.
Deposited on	:	1998-08-12
Resolution	:	3.50 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:

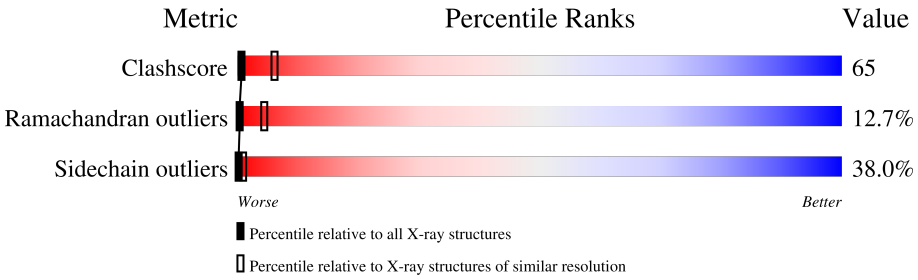
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	NOT EXECUTED
EDS	:	NOT EXECUTED
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.34

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.50 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))
Clashscore	141614	1036 (3.58-3.42)
Ramachandran outliers	138981	1005 (3.58-3.42)
Sidechain outliers	138945	1006 (3.58-3.42)

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 <=5%

Note EDS was not executed.

Mol	Chain	Length	Quality of chain
1	A	397	20% 46% 30% ·
1	B	397	20% 47% 30% ·
1	C	397	20% 47% 29% ·
1	D	397	21% 46% 30% ·
1	E	397	19% 47% 30% ·
1	F	397	20% 47% 30% ·

2 Entry composition

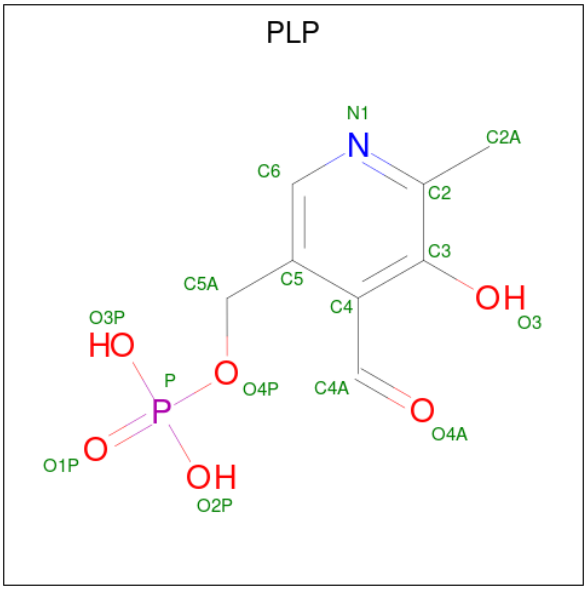
There are 2 unique types of molecules in this entry. The entry contains 18480 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 TYROSINE AMINOTRANSFERASE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	397	Total	C	N	O	S	0	0	0
			3065	1950	528	571	16			
1	B	397	Total	C	N	O	S	0	0	0
			3065	1950	528	571	16			
1	C	397	Total	C	N	O	S	0	0	0
			3065	1950	528	571	16			
1	D	397	Total	C	N	O	S	0	0	0
			3065	1950	528	571	16			
1	E	397	Total	C	N	O	S	0	0	0
			3065	1950	528	571	16			
1	F	397	Total	C	N	O	S	0	0	0
			3065	1950	528	571	16			

- Molecule 2 is PYRIDOXAL-5'-PHOSPHATE (three-letter code: PLP) (formula: $C_8H_{10}NO_6P$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	N	O	P	0	0
			15	8	1	5	1		
2	B	1	Total	C	N	O	P	0	0
			15	8	1	5	1		
2	C	1	Total	C	N	O	P	0	0
			15	8	1	5	1		
2	D	1	Total	C	N	O	P	0	0
			15	8	1	5	1		
2	E	1	Total	C	N	O	P	0	0
			15	8	1	5	1		
2	F	1	Total	C	N	O	P	0	0
			15	8	1	5	1		

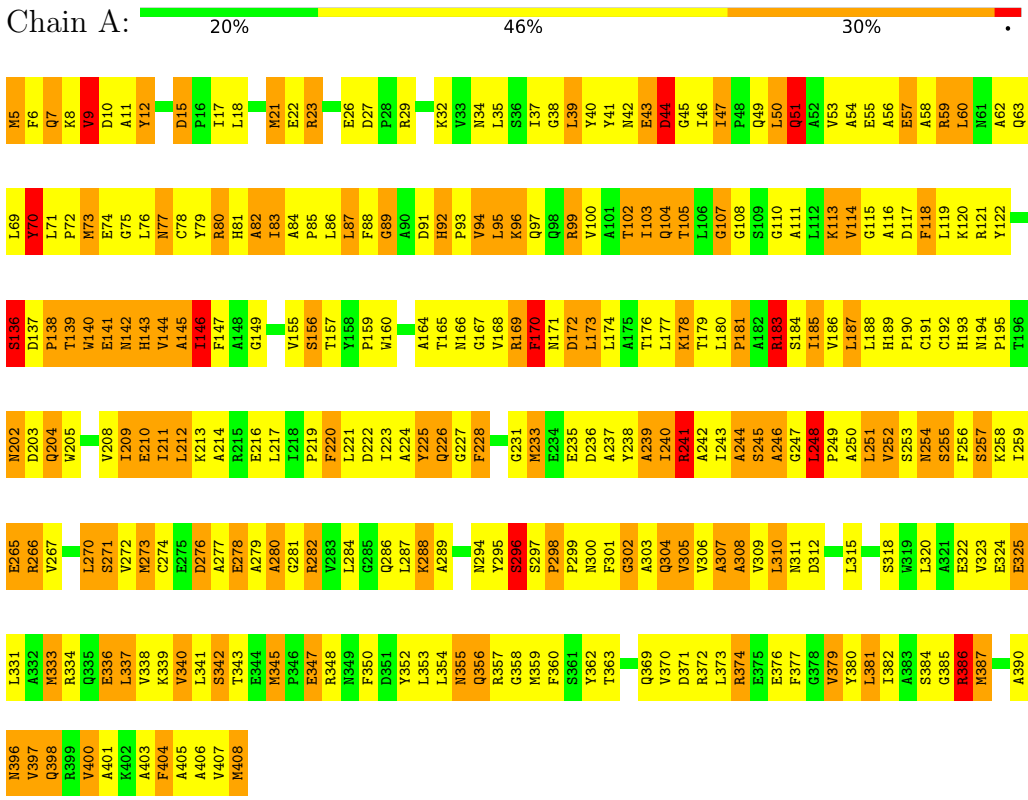
3 Residue-property plots (i)

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. 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. 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.

Note EDS was not executed.

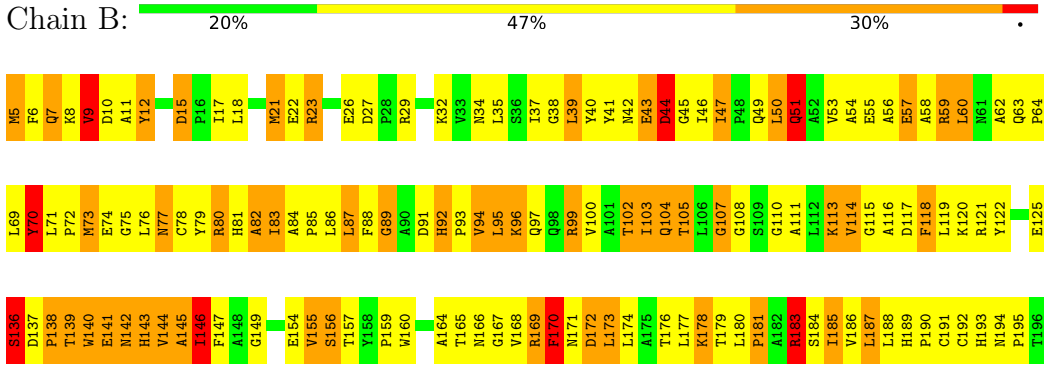
• Molecule 1: TYROSINE AMINOTRANSFERASE

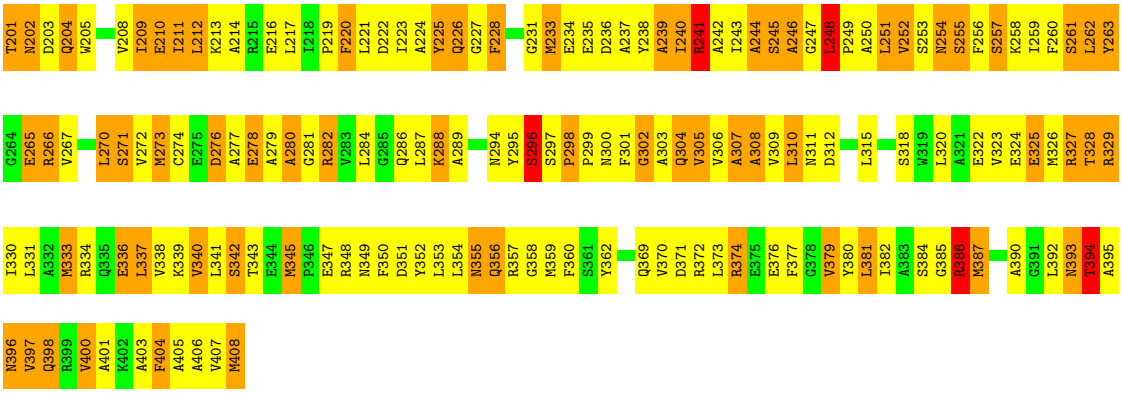
Chain A:



• Molecule 1: TYROSINE AMINOTRANSFERASE

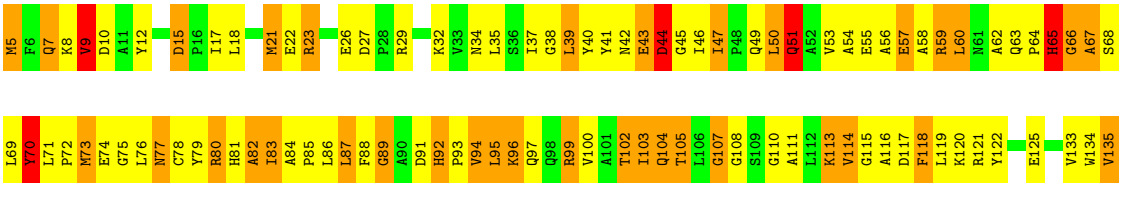
Chain B:

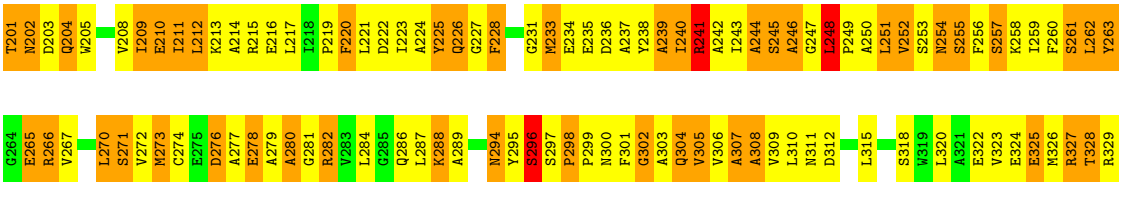




• Molecule 1: TYROSINE AMINOTRANSFERASE

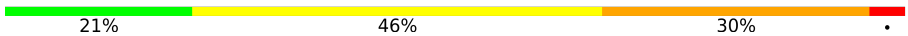
Chain C:

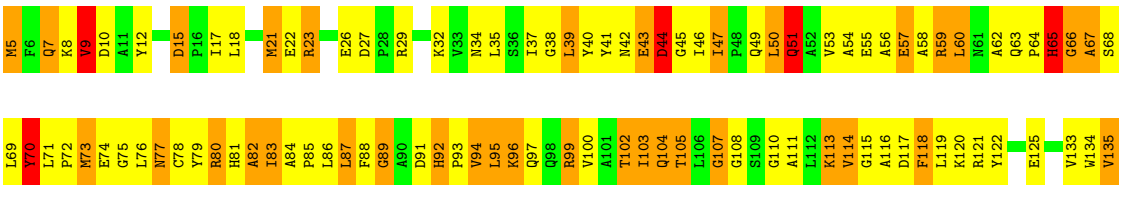


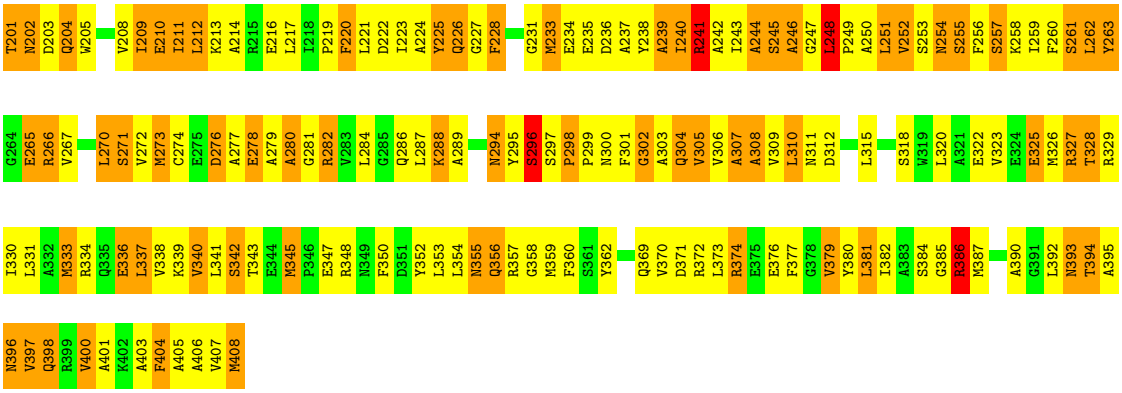


• Molecule 1: TYROSINE AMINOTRANSFERASE

Chain D:

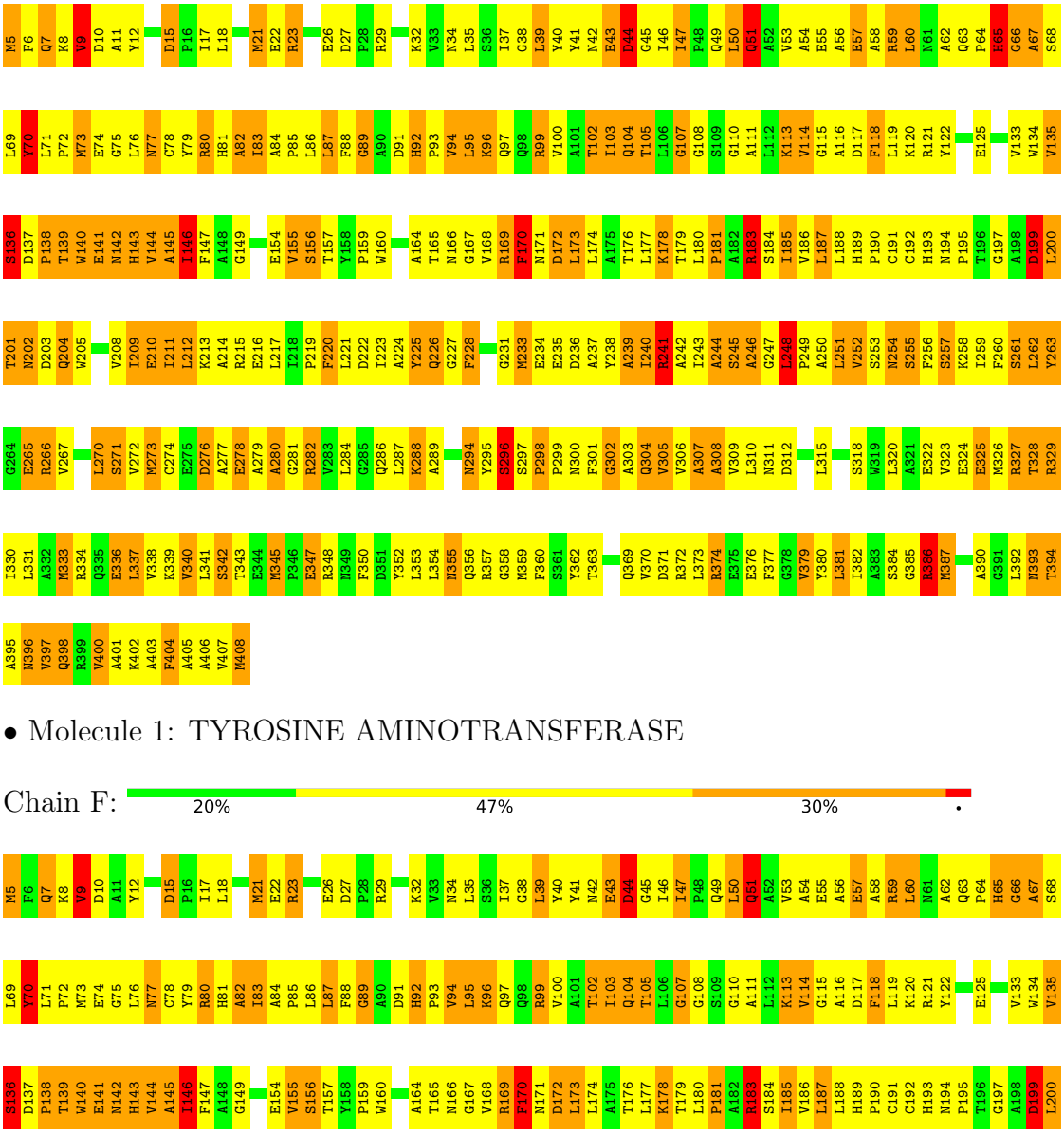






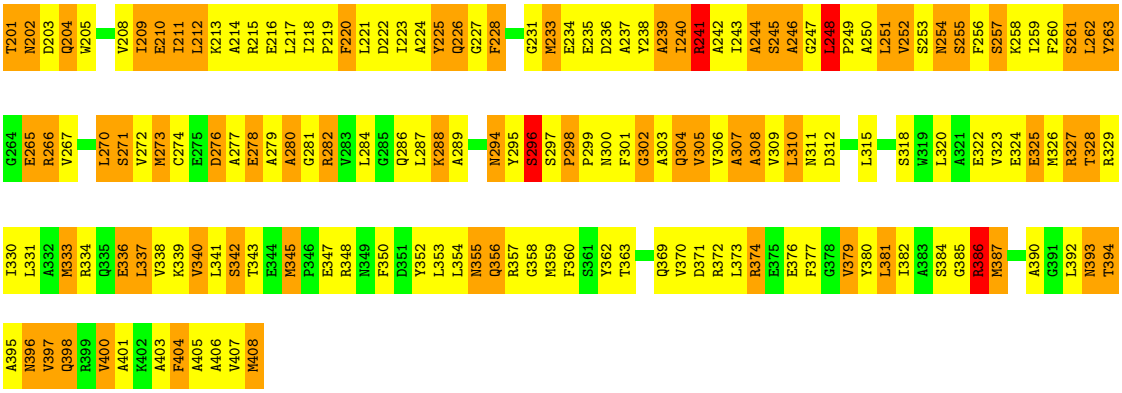
• Molecule 1: TYROSINE AMINOTRANSFERASE

Chain E:



• Molecule 1: TYROSINE AMINOTRANSFERASE

Chain F:


T201 N202 D203 Q204 W205 V208 I209 E210 I211 L212 K213 A214 R215 E216 L217 I218 P219 F220 L221 D222 I223 A224 Y225 Q226 G227 F228 G231 M233 E234 E235 D236 A237 Y238 A239 I240 R241 A242 I243 A244 S245 A246 G247 L248 P249 A250 L251 V252 S253 N254 S255 F256 S257 K258 I259 F260 S261 L262 Y263
G264 E265 R266 V267 L270 S271 V272 M273 C274 E275 D276 A277 E278 A279 A280 G281 R282 V283 L284 G285 Q286 L287 K288 A289 N294 Y295 S296 S297 P298 P299 N300 F301 G302 A303 Q304 V305 V306 A307 A308 V309 L310 N311 D312 L315 S318 W319 L320 A321 E322 V323 E324 E325 M326 R327 T328 R329
I330 L331 A332 M333 R334 Q335 E336 L337 V338 K339 V340 L341 S342 T343 E344 M345 P346 E347 R348 N349 F350 D351 Y352 L353 L354 N355 Q356 R357 G358 M359 F360 S361 Y362 T363 Q369 V370 D371 R372 L373 R374 E375 E376 F377 G378 V379 Y380 L381 I382 A383 S384 G385 R386 M387 A390 G391 L392 N393 T394
A395 N396 V397 Q398 R399 V400 A401 K402 A403 P404 A405 A406 V407 M408

4 Data and refinement statistics (i)

Xtriage (Phenix) and EDS were not executed - this section is therefore incomplete.

Property	Value	Source
Space group	P 32	Depositor
Cell constants a, b, c, α, β, γ	126.58Å 126.58Å 156.24Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	30.00 – 3.50	Depositor
% Data completeness (in resolution range)	88.5 (30.00-3.50)	Depositor
R_{merge}	0.09	Depositor
R_{sym}	0.09	Depositor
Refinement program	X-PLOR 3.851	Depositor
R, R_{free}	0.213 , 0.260	Depositor
Estimated twinning fraction	No twinning to report.	Xtriage
Total number of atoms	18480	wwPDB-VP
Average B, all atoms (Å^2)	56.0	wwPDB-VP

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: PLP

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	0.38	0/3130	0.59	0/4248
1	B	0.38	0/3130	0.59	0/4248
1	C	0.38	0/3130	0.59	0/4248
1	D	0.38	0/3130	0.59	0/4248
1	E	0.38	0/3130	0.59	0/4248
1	F	0.38	0/3130	0.59	0/4248
All	All	0.38	0/18780	0.59	0/25488

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3065	0	3034	408	0
1	B	3065	0	3034	407	9
1	C	3065	0	3034	410	1
1	D	3065	0	3034	405	0
1	E	3065	0	3034	414	8
1	F	3065	0	3034	413	0
2	A	15	0	7	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	B	15	0	7	1	0
2	C	15	0	7	1	0
2	D	15	0	7	1	0
2	E	15	0	7	1	0
2	F	15	0	7	1	0
All	All	18480	0	18246	2397	9

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 65.

All (2397) 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:C:274:CYS:SG	1:D:5:MET:HE1	1.90	1.10
1:D:248:LEU:HB3	1:D:249:PRO:HD3	1.40	1.02
1:B:248:LEU:HB3	1:B:249:PRO:HD3	1.40	1.02
1:C:248:LEU:HB3	1:C:249:PRO:HD3	1.40	1.02
1:E:248:LEU:HB3	1:E:249:PRO:HD3	1.40	1.01
1:F:186:VAL:HG12	1:F:188:LEU:HD11	1.45	0.99
1:D:186:VAL:HG12	1:D:188:LEU:HD11	1.45	0.98
1:F:248:LEU:HB3	1:F:249:PRO:HD3	1.40	0.98
1:C:186:VAL:HG12	1:C:188:LEU:HD11	1.45	0.98
1:B:186:VAL:HG12	1:B:188:LEU:HD11	1.45	0.98
1:A:248:LEU:HB3	1:A:249:PRO:HD3	1.40	0.98
1:A:186:VAL:HG12	1:A:188:LEU:HD11	1.45	0.98
1:E:373:LEU:HD11	1:E:407:VAL:HG21	1.47	0.97
1:E:89:GLY:H	1:E:241:ARG:HH21	1.07	0.97
1:F:373:LEU:HD11	1:F:407:VAL:HG21	1.47	0.97
1:A:373:LEU:HD11	1:A:407:VAL:HG21	1.47	0.96
1:D:89:GLY:H	1:D:241:ARG:HH21	1.07	0.95
1:E:186:VAL:HG12	1:E:188:LEU:HD11	1.45	0.95
1:B:373:LEU:HD11	1:B:407:VAL:HG21	1.47	0.95
1:C:373:LEU:HD11	1:C:407:VAL:HG21	1.47	0.95
1:D:373:LEU:HD11	1:D:407:VAL:HG21	1.47	0.94
1:C:89:GLY:H	1:C:241:ARG:HH21	1.07	0.94
1:E:183:ARG:HA	1:E:217:LEU:HA	1.49	0.94
1:C:274:CYS:SG	1:D:5:MET:CE	2.57	0.93
1:D:183:ARG:HA	1:D:217:LEU:HA	1.49	0.93
1:B:89:GLY:H	1:B:241:ARG:HH21	1.07	0.93
1:C:183:ARG:HA	1:C:217:LEU:HA	1.49	0.93
1:B:183:ARG:HA	1:B:217:LEU:HA	1.49	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:89:GLY:H	1:F:241:ARG:HH21	1.07	0.92
1:F:183:ARG:HA	1:F:217:LEU:HA	1.49	0.92
1:C:15:ASP:HB3	1:C:18:LEU:HB3	1.52	0.92
1:A:89:GLY:H	1:A:241:ARG:HH21	1.07	0.92
1:F:15:ASP:HB3	1:F:18:LEU:HB3	1.52	0.92
1:A:183:ARG:HA	1:A:217:LEU:HA	1.49	0.92
1:A:74:GLU:HB2	1:A:288:LYS:HE2	1.53	0.91
1:E:76:LEU:HD11	1:E:78:CYS:HB2	1.52	0.91
1:B:15:ASP:HB3	1:B:18:LEU:HB3	1.52	0.91
1:D:15:ASP:HB3	1:D:18:LEU:HB3	1.52	0.91
1:E:265:GLU:OE2	1:F:300:ASN:HB3	1.71	0.91
1:E:74:GLU:HB2	1:E:288:LYS:HE2	1.53	0.91
1:C:74:GLU:HB2	1:C:288:LYS:HE2	1.53	0.90
1:A:15:ASP:HB3	1:A:18:LEU:HB3	1.52	0.90
1:C:76:LEU:HD11	1:C:78:CYS:HB2	1.52	0.90
1:D:74:GLU:HB2	1:D:288:LYS:HE2	1.53	0.90
1:B:74:GLU:HB2	1:B:288:LYS:HE2	1.53	0.90
1:B:76:LEU:HD11	1:B:78:CYS:HB2	1.52	0.90
1:B:382:ILE:HD12	1:B:386:ARG:HD3	1.53	0.90
1:F:74:GLU:HB2	1:F:288:LYS:HE2	1.52	0.90
1:D:76:LEU:HD11	1:D:78:CYS:HB2	1.52	0.90
1:E:382:ILE:HD12	1:E:386:ARG:HD3	1.53	0.90
1:A:76:LEU:HD11	1:A:78:CYS:HB2	1.52	0.89
1:C:382:ILE:HD12	1:C:386:ARG:HD3	1.53	0.89
1:F:382:ILE:HD12	1:F:386:ARG:HD3	1.53	0.89
1:F:76:LEU:HD11	1:F:78:CYS:HB2	1.52	0.89
1:D:382:ILE:HD12	1:D:386:ARG:HD3	1.53	0.89
1:E:15:ASP:HB3	1:E:18:LEU:HB3	1.52	0.88
1:D:263:TYR:O	1:D:266:ARG:HD2	1.74	0.88
1:F:263:TYR:O	1:F:266:ARG:HD2	1.74	0.88
1:A:263:TYR:O	1:A:266:ARG:HD2	1.74	0.88
1:C:263:TYR:O	1:C:266:ARG:HD2	1.74	0.88
1:A:382:ILE:HD12	1:A:386:ARG:HD3	1.53	0.88
1:B:263:TYR:O	1:B:266:ARG:HD2	1.74	0.88
1:F:250:ALA:HB3	1:F:273:MET:SD	2.14	0.88
1:A:382:ILE:HG23	1:A:384:SER:H	1.40	0.87
1:E:382:ILE:HG23	1:E:384:SER:H	1.40	0.87
1:E:250:ALA:HB3	1:E:273:MET:SD	2.14	0.87
1:A:250:ALA:HB3	1:A:273:MET:SD	2.14	0.87
1:E:263:TYR:O	1:E:266:ARG:HD2	1.73	0.87
1:F:382:ILE:HG23	1:F:384:SER:H	1.40	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:382:ILE:HG23	1:C:384:SER:H	1.40	0.87
1:C:250:ALA:HB3	1:C:273:MET:SD	2.14	0.87
1:B:250:ALA:HB3	1:B:273:MET:SD	2.14	0.86
1:B:382:ILE:HG23	1:B:384:SER:H	1.39	0.86
1:D:250:ALA:HB3	1:D:273:MET:SD	2.14	0.86
1:E:274:CYS:SG	1:F:5:MET:HE1	2.13	0.86
1:D:382:ILE:HG23	1:D:384:SER:H	1.40	0.86
1:E:170:PHE:HZ	1:E:204:GLN:HB2	1.41	0.85
1:D:116:ALA:HA	1:D:119:LEU:HD12	1.59	0.85
1:D:197:GLY:HA3	1:D:360:PHE:O	1.77	0.85
1:A:197:GLY:HA3	1:A:360:PHE:O	1.77	0.85
1:F:197:GLY:HA3	1:F:360:PHE:O	1.77	0.85
1:C:197:GLY:HA3	1:C:360:PHE:O	1.77	0.85
1:E:197:GLY:HA3	1:E:360:PHE:O	1.77	0.85
1:C:116:ALA:HA	1:C:119:LEU:HD12	1.59	0.84
1:D:170:PHE:HZ	1:D:204:GLN:HB2	1.41	0.84
1:A:116:ALA:HA	1:A:119:LEU:HD12	1.59	0.84
1:A:170:PHE:HZ	1:A:204:GLN:HB2	1.41	0.84
1:B:170:PHE:HZ	1:B:204:GLN:HB2	1.41	0.84
1:B:197:GLY:HA3	1:B:360:PHE:O	1.77	0.84
1:B:116:ALA:HA	1:B:119:LEU:HD12	1.59	0.84
1:C:170:PHE:HZ	1:C:204:GLN:HB2	1.41	0.84
1:F:170:PHE:HZ	1:F:204:GLN:HB2	1.41	0.84
1:C:219:PRO:HG2	1:C:250:ALA:HA	1.60	0.84
1:D:219:PRO:HG2	1:D:250:ALA:HA	1.60	0.84
1:E:116:ALA:HA	1:E:119:LEU:HD12	1.59	0.84
1:C:170:PHE:CZ	1:C:204:GLN:HB2	2.13	0.83
1:E:170:PHE:CZ	1:E:204:GLN:HB2	2.13	0.83
1:A:170:PHE:CZ	1:A:204:GLN:HB2	2.14	0.83
1:B:219:PRO:HG2	1:B:250:ALA:HA	1.60	0.83
1:E:191:CYS:CB	1:E:236:ASP:HB3	2.08	0.83
1:B:191:CYS:CB	1:B:236:ASP:HB3	2.08	0.83
1:F:170:PHE:CZ	1:F:204:GLN:HB2	2.13	0.83
1:E:263:TYR:CB	1:F:70:TYR:CD2	2.62	0.83
1:C:191:CYS:CB	1:C:236:ASP:HB3	2.08	0.83
1:A:219:PRO:HG2	1:A:250:ALA:HA	1.60	0.83
1:B:170:PHE:CZ	1:B:204:GLN:HB2	2.13	0.83
1:E:225:TYR:HB3	1:E:228:PHE:HD2	1.44	0.83
1:F:191:CYS:CB	1:F:236:ASP:HB3	2.08	0.83
1:A:191:CYS:CB	1:A:236:ASP:HB3	2.08	0.82
1:D:170:PHE:CZ	1:D:204:GLN:HB2	2.13	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:219:PRO:HG2	1:E:250:ALA:HA	1.60	0.82
1:F:116:ALA:HA	1:F:119:LEU:HD12	1.59	0.82
1:D:191:CYS:CB	1:D:236:ASP:HB3	2.08	0.82
1:B:373:LEU:HB3	1:B:379:VAL:HG23	1.62	0.82
1:F:225:TYR:HB3	1:F:228:PHE:HD2	1.44	0.82
1:F:373:LEU:HB3	1:F:379:VAL:HG23	1.62	0.82
1:C:373:LEU:HB3	1:C:379:VAL:HG23	1.62	0.82
1:E:300:ASN:HB3	1:F:265:GLU:OE2	1.79	0.82
1:D:304:GLN:O	1:D:307:ALA:HB3	1.80	0.82
1:F:219:PRO:HG2	1:F:250:ALA:HA	1.60	0.82
1:C:304:GLN:O	1:C:307:ALA:HB3	1.80	0.81
1:F:304:GLN:O	1:F:307:ALA:HB3	1.80	0.81
1:A:225:TYR:HB3	1:A:228:PHE:HD2	1.44	0.81
1:A:260:PHE:HB3	1:A:262:LEU:HD21	1.63	0.81
1:C:260:PHE:HB3	1:C:262:LEU:HD21	1.63	0.81
1:D:260:PHE:HB3	1:D:262:LEU:HD21	1.63	0.81
1:E:260:PHE:HB3	1:E:262:LEU:HD21	1.63	0.81
1:B:260:PHE:HB3	1:B:262:LEU:HD21	1.63	0.81
1:D:373:LEU:HB3	1:D:379:VAL:HG23	1.62	0.81
1:A:373:LEU:HB3	1:A:379:VAL:HG23	1.62	0.81
1:E:304:GLN:O	1:E:307:ALA:HB3	1.80	0.81
1:F:221:LEU:HD23	1:F:240:ILE:HG23	1.63	0.81
1:A:304:GLN:O	1:A:307:ALA:HB3	1.80	0.81
1:C:225:TYR:HB3	1:C:228:PHE:HD2	1.44	0.81
1:F:260:PHE:HB3	1:F:262:LEU:HD21	1.63	0.81
1:B:221:LEU:HD23	1:B:240:ILE:HG23	1.63	0.81
1:D:184:SER:H	1:D:217:LEU:HD23	1.46	0.81
1:B:80:ARG:HA	1:B:83:ILE:HD12	1.63	0.80
1:E:80:ARG:HA	1:E:83:ILE:HD12	1.63	0.80
1:B:59:ARG:HA	1:B:62:ALA:HB3	1.64	0.80
1:B:304:GLN:O	1:B:307:ALA:HB3	1.80	0.80
1:C:59:ARG:HA	1:C:62:ALA:HB3	1.64	0.80
1:E:373:LEU:HB3	1:E:379:VAL:HG23	1.62	0.80
1:A:59:ARG:HA	1:A:62:ALA:HB3	1.64	0.80
1:A:80:ARG:HA	1:A:83:ILE:HD12	1.63	0.80
1:A:184:SER:H	1:A:217:LEU:HD23	1.46	0.80
1:D:80:ARG:HA	1:D:83:ILE:HD12	1.63	0.80
1:A:221:LEU:HD23	1:A:240:ILE:HG23	1.63	0.80
1:C:80:ARG:HA	1:C:83:ILE:HD12	1.63	0.80
1:F:80:ARG:HA	1:F:83:ILE:HD12	1.63	0.80
1:E:59:ARG:HA	1:E:62:ALA:HB3	1.64	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:59:ARG:HA	1:F:62:ALA:HB3	1.64	0.80
1:F:140:TRP:O	1:F:143:HIS:HB2	1.82	0.80
1:D:59:ARG:HA	1:D:62:ALA:HB3	1.64	0.80
1:C:221:LEU:HD23	1:C:240:ILE:HG23	1.63	0.79
1:B:225:TYR:HB3	1:B:228:PHE:HD2	1.44	0.79
1:D:76:LEU:HG	1:D:79:TYR:H	1.48	0.79
1:E:140:TRP:O	1:E:143:HIS:HB2	1.82	0.79
1:C:140:TRP:O	1:C:143:HIS:HB2	1.82	0.79
1:E:184:SER:H	1:E:217:LEU:HD23	1.46	0.79
1:F:226:GLN:H	1:F:259:ILE:HD12	1.48	0.79
1:C:333:MET:HE3	1:C:393:ASN:HA	1.63	0.79
1:B:140:TRP:O	1:B:143:HIS:HB2	1.82	0.79
1:C:184:SER:H	1:C:217:LEU:HD23	1.46	0.79
1:B:95:LEU:HB3	1:B:96:LYS:HE2	1.65	0.79
1:B:184:SER:H	1:B:217:LEU:HD23	1.46	0.79
1:D:225:TYR:HB3	1:D:228:PHE:HD2	1.44	0.79
1:E:221:LEU:HD23	1:E:240:ILE:HG23	1.63	0.79
1:A:140:TRP:O	1:A:143:HIS:HB2	1.82	0.79
1:B:76:LEU:HG	1:B:79:TYR:H	1.48	0.78
1:A:95:LEU:HB3	1:A:96:LYS:HE2	1.65	0.78
1:F:76:LEU:HG	1:F:79:TYR:H	1.48	0.78
1:F:184:SER:H	1:F:217:LEU:HD23	1.46	0.78
1:D:221:LEU:HD23	1:D:240:ILE:HG23	1.63	0.78
1:C:76:LEU:HG	1:C:79:TYR:H	1.48	0.78
1:C:95:LEU:HB3	1:C:96:LYS:HE2	1.65	0.78
1:D:95:LEU:HB3	1:D:96:LYS:HE2	1.65	0.78
1:E:95:LEU:HB3	1:E:96:LYS:HE2	1.65	0.78
1:D:140:TRP:O	1:D:143:HIS:HB2	1.82	0.78
1:D:307:ALA:O	1:D:309:VAL:N	2.17	0.78
1:E:76:LEU:HG	1:E:79:TYR:H	1.48	0.78
1:A:307:ALA:O	1:A:309:VAL:N	2.17	0.78
1:F:307:ALA:O	1:F:309:VAL:N	2.17	0.77
1:E:307:ALA:O	1:E:309:VAL:N	2.17	0.77
1:B:307:ALA:O	1:B:309:VAL:N	2.17	0.77
1:D:226:GLN:H	1:D:259:ILE:HD12	1.48	0.77
1:A:226:GLN:H	1:A:259:ILE:HD12	1.48	0.77
1:E:226:GLN:H	1:E:259:ILE:HD12	1.48	0.77
1:A:76:LEU:HG	1:A:79:TYR:H	1.48	0.77
1:D:333:MET:HE3	1:D:393:ASN:HA	1.67	0.77
1:B:226:GLN:H	1:B:259:ILE:HD12	1.48	0.77
1:C:226:GLN:H	1:C:259:ILE:HD12	1.48	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:307:ALA:O	1:C:309:VAL:N	2.17	0.77
1:E:263:TYR:HB2	1:F:70:TYR:CD2	2.21	0.76
1:E:272:VAL:HG12	1:E:273:MET:H	1.51	0.76
1:F:95:LEU:HB3	1:F:96:LYS:HE2	1.65	0.76
1:C:42:ASN:HB3	1:C:46:ILE:O	1.85	0.76
1:D:42:ASN:HB3	1:D:46:ILE:O	1.85	0.76
1:E:42:ASN:HB3	1:E:46:ILE:O	1.85	0.76
1:E:274:CYS:SG	1:F:5:MET:CE	2.73	0.76
1:A:42:ASN:HB3	1:A:46:ILE:O	1.85	0.76
1:F:42:ASN:HB3	1:F:46:ILE:O	1.85	0.76
1:B:42:ASN:HB3	1:B:46:ILE:O	1.85	0.76
1:E:243:ILE:O	1:E:247:GLY:HA3	1.86	0.75
1:B:272:VAL:HG12	1:B:273:MET:H	1.51	0.75
1:A:243:ILE:O	1:A:247:GLY:HA3	1.86	0.75
1:F:205:TRP:O	1:F:208:VAL:HB	1.87	0.75
1:F:243:ILE:O	1:F:247:GLY:HA3	1.86	0.75
1:F:272:VAL:HG12	1:F:273:MET:H	1.51	0.75
1:E:205:TRP:O	1:E:208:VAL:HB	1.87	0.75
1:D:272:VAL:HG12	1:D:273:MET:H	1.51	0.75
1:C:243:ILE:O	1:C:247:GLY:HA3	1.86	0.75
1:D:205:TRP:O	1:D:208:VAL:HB	1.87	0.75
1:A:323:VAL:HA	1:A:326:MET:HG3	1.69	0.75
1:C:181:PRO:HG2	1:C:184:SER:OG	1.87	0.75
1:B:181:PRO:HG2	1:B:184:SER:OG	1.87	0.75
1:E:323:VAL:HA	1:E:326:MET:HG3	1.69	0.74
1:F:248:LEU:HB3	1:F:249:PRO:CD	2.17	0.74
1:A:181:PRO:HG2	1:A:184:SER:OG	1.87	0.74
1:C:205:TRP:O	1:C:208:VAL:HB	1.87	0.74
1:E:248:LEU:HB3	1:E:249:PRO:CD	2.17	0.74
1:A:272:VAL:HG12	1:A:273:MET:H	1.51	0.74
1:D:181:PRO:HG2	1:D:184:SER:OG	1.87	0.74
1:B:243:ILE:O	1:B:247:GLY:HA3	1.86	0.74
1:E:89:GLY:N	1:E:241:ARG:HH21	1.85	0.74
1:E:181:PRO:HG2	1:E:184:SER:OG	1.87	0.74
1:D:323:VAL:HA	1:D:326:MET:HG3	1.69	0.74
1:A:205:TRP:O	1:A:208:VAL:HB	1.87	0.74
1:D:243:ILE:O	1:D:247:GLY:HA3	1.86	0.74
1:C:248:LEU:HB3	1:C:249:PRO:CD	2.17	0.74
1:B:205:TRP:O	1:B:208:VAL:HB	1.87	0.74
1:B:248:LEU:HB3	1:B:249:PRO:CD	2.17	0.74
1:B:76:LEU:HG	1:B:79:TYR:N	2.03	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:248:LEU:HB3	1:D:249:PRO:CD	2.17	0.74
1:F:323:VAL:HA	1:F:326:MET:HG3	1.69	0.74
1:F:181:PRO:HG2	1:F:184:SER:OG	1.87	0.73
1:A:248:LEU:HB3	1:A:249:PRO:CD	2.17	0.73
1:C:272:VAL:HG12	1:C:273:MET:H	1.51	0.73
1:C:323:VAL:HA	1:C:326:MET:HG3	1.69	0.73
1:A:89:GLY:N	1:A:241:ARG:HH21	1.85	0.73
1:A:333:MET:HE3	1:A:393:ASN:HA	1.70	0.73
1:B:323:VAL:HA	1:B:326:MET:HG3	1.69	0.73
1:C:169:ARG:HG2	1:C:172:ASP:HB2	1.71	0.73
1:D:76:LEU:HG	1:D:79:TYR:N	2.03	0.73
1:F:333:MET:HE3	1:F:393:ASN:HA	1.69	0.73
1:B:169:ARG:HG2	1:B:172:ASP:HB2	1.71	0.73
1:C:76:LEU:HG	1:C:79:TYR:N	2.03	0.73
1:B:58:ALA:O	1:B:62:ALA:HB2	1.88	0.73
1:C:265:GLU:OE2	1:D:300:ASN:HB3	1.89	0.73
1:F:169:ARG:HG2	1:F:172:ASP:HB2	1.71	0.73
1:A:79:TYR:HE1	1:A:306:VAL:HB	1.54	0.73
1:A:169:ARG:HG2	1:A:172:ASP:HB2	1.71	0.73
1:C:58:ALA:O	1:C:62:ALA:HB2	1.88	0.73
1:D:79:TYR:HE1	1:D:306:VAL:HB	1.54	0.73
1:E:58:ALA:O	1:E:62:ALA:HB2	1.88	0.73
1:E:169:ARG:HG2	1:E:172:ASP:HB2	1.71	0.73
1:A:58:ALA:O	1:A:62:ALA:HB2	1.88	0.73
1:A:76:LEU:HG	1:A:79:TYR:N	2.03	0.73
1:E:76:LEU:HG	1:E:79:TYR:N	2.03	0.73
1:E:79:TYR:HE1	1:E:306:VAL:HB	1.54	0.73
1:B:79:TYR:HE1	1:B:306:VAL:HB	1.54	0.72
1:C:79:TYR:HE1	1:C:306:VAL:HB	1.54	0.72
1:F:58:ALA:O	1:F:62:ALA:HB2	1.88	0.72
1:D:89:GLY:N	1:D:241:ARG:HH21	1.85	0.72
1:D:169:ARG:HG2	1:D:172:ASP:HB2	1.71	0.72
1:F:89:GLY:N	1:F:241:ARG:HH21	1.85	0.72
1:F:79:TYR:HE1	1:F:306:VAL:HB	1.54	0.72
1:B:89:GLY:N	1:B:241:ARG:HH21	1.85	0.72
1:E:72:PRO:C	1:E:74:GLU:H	1.92	0.72
1:D:89:GLY:H	1:D:241:ARG:NH2	1.87	0.72
1:B:337:LEU:O	1:B:341:LEU:HB2	1.90	0.72
1:D:58:ALA:O	1:D:62:ALA:HB2	1.88	0.72
1:C:18:LEU:O	1:C:21:MET:HB2	1.90	0.72
1:C:72:PRO:C	1:C:74:GLU:H	1.92	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:76:LEU:HG	1:F:79:TYR:N	2.03	0.72
1:A:87:LEU:N	1:A:87:LEU:HD23	2.05	0.71
1:B:72:PRO:C	1:B:74:GLU:H	1.92	0.71
1:D:72:PRO:C	1:D:74:GLU:H	1.92	0.71
1:A:72:PRO:C	1:A:74:GLU:H	1.92	0.71
1:B:18:LEU:O	1:B:21:MET:HB2	1.90	0.71
1:B:369:GLN:O	1:B:373:LEU:HD12	1.91	0.71
1:D:369:GLN:O	1:D:373:LEU:HD12	1.91	0.71
1:E:337:LEU:O	1:E:341:LEU:HB2	1.90	0.71
1:F:18:LEU:O	1:F:21:MET:HB2	1.90	0.71
1:B:87:LEU:HD23	1:B:87:LEU:N	2.05	0.71
1:C:369:GLN:O	1:C:373:LEU:HD12	1.91	0.71
1:C:337:LEU:O	1:C:341:LEU:HB2	1.90	0.71
1:D:18:LEU:O	1:D:21:MET:HB2	1.90	0.71
1:F:186:VAL:HG12	1:F:188:LEU:CD1	2.21	0.71
1:A:393:ASN:O	1:A:397:VAL:HG23	1.90	0.71
1:B:333:MET:HE3	1:B:393:ASN:HA	1.73	0.71
1:C:87:LEU:N	1:C:87:LEU:HD23	2.05	0.71
1:D:87:LEU:N	1:D:87:LEU:HD23	2.05	0.71
1:D:393:ASN:O	1:D:397:VAL:HG23	1.90	0.71
1:E:369:GLN:O	1:E:373:LEU:HD12	1.91	0.71
1:F:337:LEU:O	1:F:341:LEU:HB2	1.90	0.71
1:F:393:ASN:O	1:F:397:VAL:HG23	1.90	0.71
1:B:89:GLY:H	1:B:241:ARG:NH2	1.87	0.71
1:F:369:GLN:O	1:F:373:LEU:HD12	1.91	0.71
1:A:369:GLN:O	1:A:373:LEU:HD12	1.91	0.71
1:C:142:ASN:HD22	1:C:142:ASN:N	1.88	0.71
1:C:393:ASN:O	1:C:397:VAL:HG23	1.90	0.71
1:D:337:LEU:O	1:D:341:LEU:HB2	1.90	0.71
1:D:92:HIS:CD2	1:D:245:SER:HB3	2.26	0.71
1:F:72:PRO:C	1:F:74:GLU:H	1.92	0.71
1:F:92:HIS:CD2	1:F:245:SER:HB3	2.26	0.71
1:B:92:HIS:CD2	1:B:245:SER:HB3	2.26	0.71
1:C:99:ARG:O	1:C:273:MET:HA	1.91	0.71
1:B:99:ARG:O	1:B:273:MET:HA	1.91	0.70
1:A:99:ARG:O	1:A:273:MET:HA	1.91	0.70
1:C:92:HIS:CD2	1:C:245:SER:HB3	2.26	0.70
1:E:99:ARG:O	1:E:273:MET:HA	1.91	0.70
1:F:67:ALA:O	1:F:69:LEU:HG	1.91	0.70
1:B:67:ALA:O	1:B:69:LEU:HG	1.91	0.70
1:B:393:ASN:O	1:B:397:VAL:HG23	1.90	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:89:GLY:H	1:C:241:ARG:NH2	1.87	0.70
1:E:92:HIS:CD2	1:E:245:SER:HB3	2.26	0.70
1:F:89:GLY:H	1:F:241:ARG:NH2	1.87	0.70
1:A:18:LEU:O	1:A:21:MET:HB2	1.90	0.70
1:C:67:ALA:O	1:C:69:LEU:HG	1.92	0.70
1:C:89:GLY:N	1:C:241:ARG:HH21	1.85	0.70
1:E:67:ALA:O	1:E:69:LEU:HG	1.92	0.70
1:F:87:LEU:N	1:F:87:LEU:HD23	2.05	0.70
1:A:92:HIS:CD2	1:A:245:SER:HB3	2.26	0.70
1:A:142:ASN:HD22	1:A:142:ASN:N	1.88	0.70
1:E:393:ASN:O	1:E:397:VAL:HG23	1.90	0.70
1:A:89:GLY:H	1:A:241:ARG:NH2	1.87	0.70
1:E:18:LEU:O	1:E:21:MET:HB2	1.90	0.70
1:E:87:LEU:N	1:E:87:LEU:HD23	2.05	0.70
1:F:99:ARG:O	1:F:273:MET:HA	1.91	0.70
1:D:99:ARG:O	1:D:273:MET:HA	1.91	0.69
1:D:142:ASN:HD22	1:D:142:ASN:N	1.89	0.69
1:E:142:ASN:HD22	1:E:142:ASN:N	1.88	0.69
1:E:195:PRO:HB3	1:E:386:ARG:HD2	1.75	0.69
1:A:195:PRO:HB3	1:A:386:ARG:HD2	1.75	0.69
1:B:195:PRO:HB3	1:B:386:ARG:HD2	1.75	0.69
1:C:5:MET:HE1	1:D:274:CYS:SG	2.33	0.69
1:C:195:PRO:HB3	1:C:386:ARG:HD2	1.75	0.69
1:D:67:ALA:O	1:D:69:LEU:HG	1.92	0.69
1:A:337:LEU:O	1:A:341:LEU:HB2	1.90	0.69
1:B:142:ASN:HD22	1:B:142:ASN:N	1.88	0.69
1:E:186:VAL:HG12	1:E:188:LEU:CD1	2.21	0.69
1:A:67:ALA:O	1:A:69:LEU:HG	1.92	0.69
1:A:279:ALA:C	1:A:281:GLY:H	1.96	0.69
1:D:195:PRO:HB3	1:D:386:ARG:HD2	1.75	0.69
1:A:136:SER:HB2	1:A:138:PRO:O	1.93	0.69
1:A:257:SER:CB	1:A:263:TYR:HA	2.23	0.69
1:F:142:ASN:HD22	1:F:142:ASN:N	1.88	0.69
1:F:195:PRO:HB3	1:F:386:ARG:HD2	1.75	0.69
1:B:136:SER:HB2	1:B:138:PRO:O	1.93	0.68
1:C:257:SER:CB	1:C:263:TYR:HA	2.23	0.68
1:D:257:SER:CB	1:D:263:TYR:HA	2.23	0.68
1:D:338:VAL:HG21	1:D:354:LEU:HG	1.75	0.68
1:E:333:MET:HE3	1:E:393:ASN:HA	1.75	0.68
1:E:338:VAL:HG21	1:E:354:LEU:HG	1.75	0.68
1:F:136:SER:HB2	1:F:138:PRO:O	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:338:VAL:HG21	1:F:354:LEU:HG	1.75	0.68
1:B:257:SER:CB	1:B:263:TYR:HA	2.23	0.68
1:E:279:ALA:C	1:E:281:GLY:H	1.96	0.68
1:E:89:GLY:H	1:E:241:ARG:NH2	1.87	0.68
1:A:221:LEU:HB3	1:A:252:VAL:HG23	1.76	0.68
1:A:338:VAL:HG21	1:A:354:LEU:HG	1.75	0.68
1:B:279:ALA:C	1:B:281:GLY:H	1.96	0.68
1:C:279:ALA:C	1:C:281:GLY:H	1.96	0.68
1:E:221:LEU:HB3	1:E:252:VAL:HG23	1.76	0.68
1:C:221:LEU:HB3	1:C:252:VAL:HG23	1.76	0.68
1:F:191:CYS:HB3	1:F:236:ASP:HB3	1.76	0.68
1:E:136:SER:HB2	1:E:138:PRO:O	1.93	0.68
1:A:173:LEU:O	1:A:177:LEU:HD12	1.94	0.68
1:D:221:LEU:HB3	1:D:252:VAL:HG23	1.76	0.68
1:B:221:LEU:HB3	1:B:252:VAL:HG23	1.76	0.67
1:B:272:VAL:HG12	1:B:273:MET:N	2.10	0.67
1:E:173:LEU:O	1:E:177:LEU:HD12	1.94	0.67
1:A:186:VAL:HG12	1:A:188:LEU:CD1	2.21	0.67
1:B:325:GLU:HA	1:B:328:THR:HB	1.76	0.67
1:C:173:LEU:O	1:C:177:LEU:HD12	1.94	0.67
1:E:325:GLU:HA	1:E:328:THR:HB	1.76	0.67
1:F:173:LEU:O	1:F:177:LEU:HD12	1.94	0.67
1:C:272:VAL:HG12	1:C:273:MET:N	2.10	0.67
1:F:257:SER:CB	1:F:263:TYR:HA	2.23	0.67
1:B:338:VAL:HG21	1:B:354:LEU:HG	1.75	0.67
1:D:272:VAL:HG12	1:D:273:MET:N	2.10	0.67
1:E:257:SER:CB	1:E:263:TYR:HA	2.23	0.67
1:A:325:GLU:HA	1:A:328:THR:HB	1.76	0.67
1:B:186:VAL:HG12	1:B:188:LEU:CD1	2.21	0.67
1:C:136:SER:HB2	1:C:138:PRO:O	1.93	0.67
1:D:173:LEU:O	1:D:177:LEU:HD12	1.94	0.67
1:D:279:ALA:C	1:D:281:GLY:H	1.96	0.67
1:F:325:GLU:HA	1:F:328:THR:HB	1.76	0.67
1:D:136:SER:HB2	1:D:138:PRO:O	1.93	0.67
1:D:325:GLU:HA	1:D:328:THR:HB	1.76	0.67
1:F:272:VAL:HG12	1:F:273:MET:N	2.10	0.67
1:A:191:CYS:HB3	1:A:236:ASP:HB3	1.76	0.67
1:C:325:GLU:HA	1:C:328:THR:HB	1.76	0.67
1:F:221:LEU:HB3	1:F:252:VAL:HG23	1.76	0.67
1:C:191:CYS:HB3	1:C:236:ASP:HB3	1.76	0.67
1:A:183:ARG:HD3	1:B:5:MET:HA	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:272:VAL:HG12	1:A:273:MET:N	2.10	0.67
1:C:338:VAL:HG21	1:C:354:LEU:HG	1.75	0.67
1:D:186:VAL:HG12	1:D:188:LEU:CD1	2.21	0.67
1:B:173:LEU:O	1:B:177:LEU:HD12	1.94	0.66
1:F:221:LEU:CD2	1:F:240:ILE:HG23	2.25	0.66
1:A:265:GLU:HG3	1:A:302:GLY:HA2	1.78	0.66
1:C:265:GLU:HG3	1:C:302:GLY:HA2	1.78	0.66
1:D:191:CYS:HB3	1:D:236:ASP:HB3	1.76	0.66
1:A:221:LEU:CD2	1:A:240:ILE:HG23	2.25	0.66
1:B:191:CYS:HB3	1:B:236:ASP:HB3	1.76	0.66
1:C:405:ALA:HA	1:C:408:MET:HE3	1.78	0.66
1:E:221:LEU:CD2	1:E:240:ILE:HG23	2.25	0.66
1:F:279:ALA:C	1:F:281:GLY:H	1.96	0.66
1:C:186:VAL:HG12	1:C:188:LEU:CD1	2.21	0.66
1:A:79:TYR:CE1	1:A:306:VAL:HB	2.31	0.66
1:E:191:CYS:HB3	1:E:236:ASP:HB3	1.76	0.66
1:E:272:VAL:HG12	1:E:273:MET:N	2.10	0.66
1:A:322:GLU:O	1:A:326:MET:HG2	1.96	0.66
1:D:265:GLU:HG3	1:D:302:GLY:HA2	1.78	0.66
1:D:322:GLU:O	1:D:326:MET:HG2	1.96	0.66
1:F:34:ASN:O	1:F:35:LEU:HD23	1.96	0.66
1:A:187:LEU:C	1:A:188:LEU:HD12	2.17	0.66
1:B:79:TYR:CE1	1:B:306:VAL:HB	2.31	0.66
1:E:186:VAL:CG1	1:E:188:LEU:HD11	2.24	0.66
1:F:97:GLN:O	1:F:277:ALA:HB2	1.96	0.66
1:F:187:LEU:C	1:F:188:LEU:HD12	2.17	0.66
1:B:322:GLU:O	1:B:326:MET:HG2	1.96	0.66
1:C:79:TYR:CE1	1:C:306:VAL:HB	2.31	0.66
1:C:221:LEU:CD2	1:C:240:ILE:HG23	2.25	0.66
1:D:34:ASN:O	1:D:35:LEU:HD23	1.96	0.66
1:D:97:GLN:O	1:D:277:ALA:HB2	1.96	0.66
1:A:338:VAL:O	1:A:342:SER:HB2	1.96	0.65
1:B:187:LEU:C	1:B:188:LEU:HD12	2.17	0.65
1:D:79:TYR:CE1	1:D:306:VAL:HB	2.31	0.65
1:F:265:GLU:HG3	1:F:302:GLY:HA2	1.78	0.65
1:C:322:GLU:O	1:C:326:MET:HG2	1.96	0.65
1:C:338:VAL:O	1:C:342:SER:HB2	1.96	0.65
1:E:34:ASN:O	1:E:35:LEU:HD23	1.96	0.65
1:E:187:LEU:C	1:E:188:LEU:HD12	2.17	0.65
1:D:221:LEU:CD2	1:D:240:ILE:HG23	2.25	0.65
1:E:338:VAL:O	1:E:342:SER:HB2	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:187:LEU:C	1:C:188:LEU:HD12	2.17	0.65
1:A:186:VAL:CG1	1:A:188:LEU:HD11	2.24	0.65
1:A:370:VAL:HG13	1:A:381:LEU:HD12	1.79	0.65
1:B:97:GLN:O	1:B:277:ALA:HB2	1.96	0.65
1:B:265:GLU:HG3	1:B:302:GLY:HA2	1.78	0.65
1:E:70:TYR:CD2	1:F:263:TYR:HB2	2.32	0.65
1:F:79:TYR:CE1	1:F:306:VAL:HB	2.31	0.65
1:F:322:GLU:O	1:F:326:MET:HG2	1.96	0.65
1:A:216:GLU:O	1:A:217:LEU:HG	1.97	0.65
1:B:99:ARG:HB2	1:B:274:CYS:O	1.97	0.65
1:B:338:VAL:O	1:B:342:SER:HB2	1.96	0.65
1:C:99:ARG:HB2	1:C:274:CYS:O	1.97	0.65
1:E:79:TYR:CE1	1:E:306:VAL:HB	2.31	0.65
1:E:212:LEU:CD1	1:E:219:PRO:HB3	2.27	0.65
1:A:34:ASN:O	1:A:35:LEU:HD23	1.96	0.65
1:A:97:GLN:O	1:A:277:ALA:HB2	1.96	0.65
1:A:212:LEU:CD1	1:A:219:PRO:HB3	2.27	0.65
1:E:322:GLU:O	1:E:326:MET:HG2	1.96	0.65
1:E:370:VAL:HG13	1:E:381:LEU:HD12	1.79	0.65
1:F:118:PHE:O	1:F:121:ARG:N	2.30	0.65
1:D:187:LEU:C	1:D:188:LEU:HD12	2.17	0.65
1:D:338:VAL:O	1:D:342:SER:HB2	1.96	0.65
1:F:99:ARG:HB2	1:F:274:CYS:O	1.97	0.65
1:A:5:MET:HA	1:B:183:ARG:HD3	1.79	0.65
1:F:216:GLU:O	1:F:217:LEU:HG	1.97	0.64
1:A:142:ASN:HD22	1:A:142:ASN:H	1.46	0.64
1:D:212:LEU:CD1	1:D:219:PRO:HB3	2.27	0.64
1:E:97:GLN:O	1:E:277:ALA:HB2	1.96	0.64
1:F:212:LEU:CD1	1:F:219:PRO:HB3	2.27	0.64
1:B:221:LEU:CD2	1:B:240:ILE:HG23	2.25	0.64
1:C:212:LEU:CD1	1:C:219:PRO:HB3	2.27	0.64
1:D:99:ARG:HB2	1:D:274:CYS:O	1.97	0.64
1:A:99:ARG:HB2	1:A:274:CYS:O	1.97	0.64
1:B:34:ASN:O	1:B:35:LEU:HD23	1.96	0.64
1:B:216:GLU:O	1:B:217:LEU:HG	1.97	0.64
1:C:34:ASN:O	1:C:35:LEU:HD23	1.96	0.64
1:E:250:ALA:HB3	1:E:273:MET:CE	2.28	0.64
1:C:97:GLN:O	1:C:277:ALA:HB2	1.96	0.64
1:E:134:TRP:CE3	1:E:156:SER:HB3	2.33	0.64
1:F:225:TYR:HB3	1:F:228:PHE:CD2	2.31	0.64
1:E:142:ASN:HD22	1:E:142:ASN:H	1.45	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:134:TRP:CE3	1:F:156:SER:HB3	2.33	0.64
1:B:212:LEU:CD1	1:B:219:PRO:HB3	2.27	0.64
1:B:370:VAL:HG13	1:B:381:LEU:HD12	1.79	0.64
1:E:62:ALA:C	1:E:64:PRO:HD3	2.18	0.64
1:F:338:VAL:O	1:F:342:SER:HB2	1.96	0.64
1:D:186:VAL:CG1	1:D:188:LEU:HD11	2.24	0.64
1:D:254:ASN:ND2	1:D:255:SER:H	1.96	0.64
1:E:265:GLU:HG3	1:E:302:GLY:HA2	1.78	0.64
1:E:301:PHE:O	1:E:305:VAL:HG22	1.98	0.64
1:F:62:ALA:C	1:F:64:PRO:HD3	2.18	0.64
1:F:250:ALA:HB3	1:F:273:MET:CE	2.28	0.64
1:B:142:ASN:HD22	1:B:142:ASN:H	1.46	0.64
1:B:250:ALA:HB3	1:B:273:MET:CE	2.28	0.64
1:C:250:ALA:HB3	1:C:273:MET:CE	2.28	0.64
1:E:254:ASN:ND2	1:E:255:SER:H	1.95	0.64
1:F:142:ASN:HD22	1:F:142:ASN:H	1.46	0.64
1:B:134:TRP:CE3	1:B:156:SER:HB3	2.33	0.64
1:B:254:ASN:ND2	1:B:255:SER:H	1.96	0.64
1:C:370:VAL:HG13	1:C:381:LEU:HD12	1.79	0.64
1:D:216:GLU:O	1:D:217:LEU:HG	1.97	0.64
1:E:99:ARG:HB2	1:E:274:CYS:O	1.97	0.64
1:D:201:THR:HG22	1:D:204:GLN:OE1	1.98	0.63
1:E:201:THR:HG22	1:E:204:GLN:OE1	1.98	0.63
1:E:225:TYR:HB3	1:E:228:PHE:CD2	2.31	0.63
1:E:373:LEU:HB3	1:E:379:VAL:CG2	2.27	0.63
1:F:373:LEU:HB3	1:F:379:VAL:CG2	2.27	0.63
1:C:216:GLU:O	1:C:217:LEU:HG	1.97	0.63
1:E:70:TYR:CD2	1:F:263:TYR:CB	2.82	0.63
1:E:216:GLU:O	1:E:217:LEU:HG	1.97	0.63
1:C:62:ALA:C	1:C:64:PRO:HD3	2.18	0.63
1:D:62:ALA:C	1:D:64:PRO:HD3	2.18	0.63
1:F:201:THR:HG22	1:F:204:GLN:OE1	1.98	0.63
1:A:254:ASN:ND2	1:A:255:SER:H	1.96	0.63
1:B:201:THR:HG22	1:B:204:GLN:OE1	1.98	0.63
1:C:142:ASN:HD22	1:C:142:ASN:H	1.46	0.63
1:D:370:VAL:HG13	1:D:381:LEU:HD12	1.79	0.63
1:F:254:ASN:ND2	1:F:255:SER:H	1.96	0.63
1:A:134:TRP:CE3	1:A:156:SER:HB3	2.33	0.63
1:A:225:TYR:HB3	1:A:228:PHE:CD2	2.31	0.63
1:D:134:TRP:CE3	1:D:156:SER:HB3	2.33	0.63
1:A:397:VAL:O	1:A:400:VAL:HG23	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:254:ASN:ND2	1:C:255:SER:H	1.96	0.63
1:D:250:ALA:HB3	1:D:273:MET:CE	2.28	0.63
1:D:301:PHE:O	1:D:305:VAL:HG22	1.98	0.63
1:F:397:VAL:O	1:F:400:VAL:HG23	1.98	0.63
1:A:201:THR:HG22	1:A:204:GLN:OE1	1.98	0.63
1:A:250:ALA:HB3	1:A:273:MET:CE	2.28	0.63
1:A:265:GLU:OE2	1:B:300:ASN:HB3	1.99	0.63
1:B:118:PHE:O	1:B:121:ARG:N	2.30	0.63
1:B:397:VAL:O	1:B:400:VAL:HG23	1.98	0.63
1:C:201:THR:HG22	1:C:204:GLN:OE1	1.98	0.63
1:E:118:PHE:O	1:E:121:ARG:N	2.30	0.63
1:E:397:VAL:O	1:E:400:VAL:HG23	1.98	0.63
1:A:62:ALA:C	1:A:64:PRO:HD3	2.18	0.63
1:B:62:ALA:C	1:B:64:PRO:HD3	2.18	0.63
1:C:373:LEU:HB3	1:C:379:VAL:CG2	2.27	0.63
1:A:373:LEU:HB3	1:A:379:VAL:CG2	2.28	0.62
1:C:118:PHE:O	1:C:121:ARG:N	2.30	0.62
1:C:186:VAL:CG1	1:C:188:LEU:HD11	2.24	0.62
1:C:300:ASN:HB3	1:D:265:GLU:OE2	1.98	0.62
1:D:397:VAL:O	1:D:400:VAL:HG23	1.98	0.62
1:E:29:ARG:HD3	1:E:32:LYS:HB3	1.81	0.62
1:F:370:VAL:HG13	1:F:381:LEU:HD12	1.79	0.62
1:B:186:VAL:CG1	1:B:188:LEU:HD11	2.24	0.62
1:D:69:LEU:O	1:D:70:TYR:O	2.18	0.62
1:E:69:LEU:O	1:E:70:TYR:O	2.18	0.62
1:B:71:LEU:HD22	1:B:72:PRO:HD2	1.82	0.62
1:D:225:TYR:HB3	1:D:228:PHE:CD2	2.31	0.62
1:E:104:GLN:HE22	1:E:298:PRO:HB2	1.64	0.62
1:F:301:PHE:O	1:F:305:VAL:HG22	1.98	0.62
1:A:69:LEU:O	1:A:70:TYR:O	2.18	0.62
1:A:301:PHE:O	1:A:305:VAL:HG22	1.98	0.62
1:B:301:PHE:O	1:B:305:VAL:HG22	1.98	0.62
1:D:71:LEU:HD22	1:D:72:PRO:HD2	1.82	0.62
1:F:71:LEU:HD22	1:F:72:PRO:HD2	1.82	0.62
1:A:104:GLN:HE22	1:A:298:PRO:HB2	1.64	0.62
1:B:202:ASN:HB3	1:B:238:TYR:CZ	2.35	0.62
1:C:29:ARG:HD3	1:C:32:LYS:HB3	1.81	0.62
1:C:134:TRP:CE3	1:C:156:SER:HB3	2.33	0.62
1:C:397:VAL:O	1:C:400:VAL:HG23	1.98	0.62
1:C:202:ASN:HB3	1:C:238:TYR:CZ	2.35	0.62
1:D:202:ASN:HB3	1:D:238:TYR:CZ	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:202:ASN:HB3	1:F:238:TYR:CZ	2.35	0.62
1:A:404:PHE:HA	1:A:407:VAL:HG23	1.82	0.62
1:C:301:PHE:O	1:C:305:VAL:HG22	1.98	0.62
1:C:18:LEU:HD12	1:C:21:MET:HB2	1.82	0.62
1:C:69:LEU:O	1:C:70:TYR:O	2.18	0.62
1:C:71:LEU:HD22	1:C:72:PRO:HD2	1.81	0.62
1:D:18:LEU:HD12	1:D:21:MET:HB2	1.82	0.62
1:D:142:ASN:HD22	1:D:142:ASN:H	1.46	0.62
1:B:18:LEU:HD12	1:B:21:MET:HB2	1.82	0.62
1:B:69:LEU:O	1:B:70:TYR:O	2.18	0.62
1:E:159:PRO:HG2	1:E:173:LEU:HB2	1.82	0.62
1:E:257:SER:OG	1:E:263:TYR:HA	2.00	0.62
1:E:404:PHE:HA	1:E:407:VAL:HG23	1.82	0.62
1:B:84:ALA:N	1:B:85:PRO:HD2	2.15	0.62
1:B:257:SER:OG	1:B:263:TYR:HA	2.00	0.62
1:F:18:LEU:HD12	1:F:21:MET:HB2	1.82	0.62
1:A:18:LEU:HD12	1:A:21:MET:HB2	1.82	0.61
1:A:71:LEU:HD22	1:A:72:PRO:HD2	1.82	0.61
1:A:115:GLY:O	1:A:119:LEU:HG	2.00	0.61
1:A:202:ASN:HB3	1:A:238:TYR:CZ	2.35	0.61
1:C:257:SER:OG	1:C:263:TYR:HA	2.00	0.61
1:A:118:PHE:O	1:A:121:ARG:N	2.30	0.61
1:B:373:LEU:HB3	1:B:379:VAL:CG2	2.28	0.61
1:D:404:PHE:HA	1:D:407:VAL:HG23	1.82	0.61
1:E:115:GLY:O	1:E:119:LEU:HG	2.00	0.61
1:F:84:ALA:N	1:F:85:PRO:HD2	2.15	0.61
1:E:193:HIS:CD2	1:E:194:ASN:H	2.19	0.61
1:F:202:ASN:HB3	1:F:238:TYR:CE2	2.36	0.61
1:F:257:SER:OG	1:F:263:TYR:HA	2.00	0.61
1:C:294:ASN:HA	1:D:113:LYS:HE2	1.81	0.61
1:F:133:VAL:HG12	1:F:134:TRP:H	1.66	0.61
1:C:84:ALA:N	1:C:85:PRO:HD2	2.16	0.61
1:C:104:GLN:HE22	1:C:298:PRO:HB2	1.64	0.61
1:C:282:ARG:HH21	1:D:7:GLN:CA	2.13	0.61
1:D:373:LEU:HB3	1:D:379:VAL:CG2	2.28	0.61
1:F:159:PRO:HG2	1:F:173:LEU:HB2	1.82	0.61
1:A:193:HIS:CD2	1:A:194:ASN:H	2.19	0.61
1:A:257:SER:OG	1:A:263:TYR:HA	2.00	0.61
1:B:29:ARG:HD3	1:B:32:LYS:HB3	1.81	0.61
1:B:72:PRO:C	1:B:74:GLU:N	2.54	0.61
1:B:133:VAL:HG12	1:B:134:TRP:H	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:404:PHE:HA	1:B:407:VAL:HG23	1.82	0.61
1:D:29:ARG:HD3	1:D:32:LYS:HB3	1.81	0.61
1:D:84:ALA:N	1:D:85:PRO:HD2	2.15	0.61
1:F:115:GLY:O	1:F:119:LEU:HG	2.00	0.61
1:A:29:ARG:HD3	1:A:32:LYS:HB3	1.81	0.61
1:A:300:ASN:HB3	1:B:265:GLU:OE2	1.99	0.61
1:B:104:GLN:HE22	1:B:298:PRO:HB2	1.64	0.61
1:C:159:PRO:HG2	1:C:173:LEU:HB2	1.82	0.61
1:F:404:PHE:HA	1:F:407:VAL:HG23	1.82	0.61
1:A:82:ALA:O	1:A:86:LEU:HG	2.01	0.61
1:A:159:PRO:HG2	1:A:173:LEU:HB2	1.82	0.61
1:C:133:VAL:HG12	1:C:134:TRP:H	1.66	0.61
1:C:404:PHE:HA	1:C:407:VAL:HG23	1.82	0.61
1:D:104:GLN:HE22	1:D:298:PRO:HB2	1.64	0.61
1:D:193:HIS:CD2	1:D:194:ASN:H	2.19	0.61
1:D:257:SER:OG	1:D:263:TYR:HA	2.00	0.61
1:E:18:LEU:HD12	1:E:21:MET:HB2	1.82	0.61
1:F:29:ARG:HD3	1:F:32:LYS:HB3	1.81	0.61
1:F:69:LEU:O	1:F:70:TYR:O	2.18	0.61
1:B:82:ALA:O	1:B:86:LEU:HG	2.01	0.61
1:B:202:ASN:HB3	1:B:238:TYR:CE2	2.36	0.61
1:C:82:ALA:O	1:C:86:LEU:HG	2.01	0.61
1:D:82:ALA:O	1:D:86:LEU:HG	2.01	0.61
1:E:82:ALA:O	1:E:86:LEU:HG	2.01	0.61
1:E:202:ASN:HB3	1:E:238:TYR:CZ	2.35	0.61
1:A:84:ALA:N	1:A:85:PRO:HD2	2.15	0.60
1:B:115:GLY:O	1:B:119:LEU:HG	2.00	0.60
1:E:71:LEU:HD22	1:E:72:PRO:HD2	1.82	0.60
1:F:193:HIS:CD2	1:F:194:ASN:H	2.19	0.60
1:B:225:TYR:HB3	1:B:228:PHE:CD2	2.31	0.60
1:E:84:ALA:N	1:E:85:PRO:HD2	2.16	0.60
1:E:133:VAL:HG12	1:E:134:TRP:H	1.66	0.60
1:F:72:PRO:C	1:F:74:GLU:N	2.54	0.60
1:A:178:LYS:HG2	1:A:211:ILE:HG21	1.84	0.60
1:C:115:GLY:O	1:C:119:LEU:HG	2.00	0.60
1:D:178:LYS:HG2	1:D:211:ILE:HG21	1.84	0.60
1:A:133:VAL:HG12	1:A:134:TRP:H	1.66	0.60
1:B:178:LYS:HG2	1:B:211:ILE:HG21	1.83	0.60
1:D:115:GLY:O	1:D:119:LEU:HG	2.00	0.60
1:D:202:ASN:HB3	1:D:238:TYR:CE2	2.36	0.60
1:E:202:ASN:HB3	1:E:238:TYR:CE2	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:72:PRO:C	1:A:74:GLU:N	2.54	0.60
1:D:87:LEU:HD23	1:D:87:LEU:H	1.66	0.60
1:D:118:PHE:O	1:D:121:ARG:N	2.30	0.60
1:E:227:GLY:HA2	1:E:231:GLY:O	2.02	0.60
1:F:186:VAL:CG1	1:F:188:LEU:HD11	2.24	0.60
1:A:202:ASN:HB3	1:A:238:TYR:CE2	2.36	0.60
1:B:193:HIS:CD2	1:B:194:ASN:H	2.19	0.60
1:C:5:MET:CE	1:D:274:CYS:SG	2.90	0.60
1:C:178:LYS:HG2	1:C:211:ILE:HG21	1.84	0.60
1:C:202:ASN:HB3	1:C:238:TYR:CE2	2.36	0.60
1:D:159:PRO:HG2	1:D:173:LEU:HB2	1.82	0.60
1:F:82:ALA:O	1:F:86:LEU:HG	2.01	0.60
1:F:104:GLN:HE22	1:F:298:PRO:HB2	1.64	0.60
1:A:142:ASN:H	1:A:142:ASN:ND2	2.00	0.60
1:D:133:VAL:HG12	1:D:134:TRP:H	1.66	0.60
1:B:325:GLU:O	1:B:328:THR:HB	2.02	0.60
1:C:225:TYR:HB3	1:C:228:PHE:CD2	2.31	0.60
1:D:142:ASN:H	1:D:142:ASN:ND2	2.00	0.60
1:C:193:HIS:CD2	1:C:194:ASN:H	2.19	0.60
1:C:282:ARG:HH21	1:D:7:GLN:HA	1.67	0.60
1:D:40:TYR:HD1	1:D:359:MET:HE2	1.66	0.60
1:D:227:GLY:HA2	1:D:231:GLY:O	2.02	0.60
1:D:325:GLU:O	1:D:328:THR:HB	2.02	0.60
1:E:371:ASP:HA	1:E:374:ARG:HG2	1.83	0.60
1:F:178:LYS:HG2	1:F:211:ILE:HG21	1.84	0.60
1:F:227:GLY:HA2	1:F:231:GLY:O	2.02	0.60
1:B:22:GLU:O	1:B:26:GLU:HG2	2.02	0.60
1:B:142:ASN:H	1:B:142:ASN:ND2	2.00	0.60
1:B:227:GLY:HA2	1:B:231:GLY:O	2.02	0.60
1:E:22:GLU:O	1:E:26:GLU:HG2	2.02	0.60
1:F:15:ASP:HB3	1:F:18:LEU:CB	2.30	0.60
1:F:22:GLU:O	1:F:26:GLU:HG2	2.02	0.60
1:B:159:PRO:HG2	1:B:173:LEU:HB2	1.82	0.59
1:E:178:LYS:HG2	1:E:211:ILE:HG21	1.84	0.59
1:C:15:ASP:HB3	1:C:18:LEU:CB	2.30	0.59
1:C:142:ASN:H	1:C:142:ASN:ND2	2.00	0.59
1:C:227:GLY:HA2	1:C:231:GLY:O	2.02	0.59
1:C:263:TYR:CB	1:D:70:TYR:CD2	2.85	0.59
1:C:305:VAL:HG23	1:C:306:VAL:H	1.67	0.59
1:D:22:GLU:O	1:D:26:GLU:HG2	2.02	0.59
1:E:305:VAL:HG23	1:E:306:VAL:H	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:227:GLY:HA2	1:A:231:GLY:O	2.02	0.59
1:B:371:ASP:HA	1:B:374:ARG:HG2	1.83	0.59
1:E:325:GLU:O	1:E:328:THR:HB	2.02	0.59
1:F:142:ASN:H	1:F:142:ASN:ND2	2.00	0.59
1:F:371:ASP:HA	1:F:374:ARG:HG2	1.83	0.59
1:A:371:ASP:HA	1:A:374:ARG:HG2	1.83	0.59
1:B:15:ASP:HB3	1:B:18:LEU:CB	2.30	0.59
1:E:142:ASN:H	1:E:142:ASN:ND2	2.00	0.59
1:F:305:VAL:HG23	1:F:306:VAL:H	1.67	0.59
1:F:325:GLU:O	1:F:328:THR:HB	2.02	0.59
1:A:72:PRO:O	1:A:74:GLU:N	2.36	0.59
1:B:43:GLU:C	1:B:45:GLY:H	2.06	0.59
1:B:72:PRO:O	1:B:74:GLU:N	2.36	0.59
1:C:43:GLU:C	1:C:45:GLY:H	2.06	0.59
1:C:72:PRO:O	1:C:74:GLU:N	2.36	0.59
1:C:87:LEU:HD23	1:C:87:LEU:H	1.66	0.59
1:F:43:GLU:C	1:F:45:GLY:H	2.06	0.59
1:F:72:PRO:O	1:F:74:GLU:N	2.36	0.59
1:A:325:GLU:O	1:A:328:THR:HB	2.02	0.59
1:C:282:ARG:NH2	1:D:7:GLN:HA	2.16	0.59
1:E:72:PRO:O	1:E:74:GLU:N	2.36	0.59
1:D:43:GLU:C	1:D:45:GLY:H	2.06	0.59
1:D:50:LEU:HD23	1:D:322:GLU:HG2	1.85	0.59
1:D:305:VAL:HG23	1:D:306:VAL:H	1.67	0.59
1:A:71:LEU:HD12	1:A:298:PRO:O	2.03	0.59
1:E:87:LEU:HD23	1:E:87:LEU:H	1.66	0.59
1:A:22:GLU:O	1:A:26:GLU:HG2	2.02	0.59
1:A:50:LEU:HD23	1:A:322:GLU:HG2	1.85	0.59
1:A:212:LEU:HD23	1:A:217:LEU:HB2	1.84	0.59
1:C:136:SER:HB2	1:C:139:THR:HB	1.85	0.59
1:D:72:PRO:C	1:D:74:GLU:N	2.54	0.59
1:A:43:GLU:C	1:A:45:GLY:H	2.06	0.59
1:B:136:SER:HB2	1:B:139:THR:HB	1.85	0.59
1:C:50:LEU:HD23	1:C:322:GLU:HG2	1.85	0.59
1:C:325:GLU:O	1:C:328:THR:HB	2.02	0.59
1:C:371:ASP:HA	1:C:374:ARG:HG2	1.83	0.59
1:A:136:SER:HB2	1:A:139:THR:HB	1.85	0.58
1:B:50:LEU:HD23	1:B:322:GLU:HG2	1.85	0.58
1:B:87:LEU:HD23	1:B:87:LEU:H	1.66	0.58
1:C:22:GLU:O	1:C:26:GLU:HG2	2.02	0.58
1:C:113:LYS:HE2	1:D:294:ASN:HA	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:212:LEU:HD23	1:D:217:LEU:HB2	1.85	0.58
1:F:136:SER:HB2	1:F:139:THR:HB	1.85	0.58
1:C:71:LEU:HD12	1:C:298:PRO:O	2.03	0.58
1:C:249:PRO:O	1:C:250:ALA:HB2	2.03	0.58
1:D:249:PRO:O	1:D:250:ALA:HB2	2.03	0.58
1:D:371:ASP:HA	1:D:374:ARG:HG2	1.83	0.58
1:A:249:PRO:O	1:A:250:ALA:HB2	2.03	0.58
1:C:72:PRO:C	1:C:74:GLU:N	2.54	0.58
1:F:50:LEU:HD23	1:F:322:GLU:HG2	1.85	0.58
1:F:71:LEU:HD12	1:F:298:PRO:O	2.03	0.58
1:F:249:PRO:O	1:F:250:ALA:HB2	2.03	0.58
1:B:249:PRO:O	1:B:250:ALA:HB2	2.04	0.58
1:C:212:LEU:HD23	1:C:217:LEU:HB2	1.84	0.58
1:D:136:SER:HB2	1:D:139:THR:HB	1.85	0.58
1:B:71:LEU:HD12	1:B:298:PRO:O	2.03	0.58
1:B:212:LEU:HD23	1:B:217:LEU:HB2	1.85	0.58
1:B:305:VAL:HG23	1:B:306:VAL:H	1.67	0.58
1:E:136:SER:HB2	1:E:139:THR:HB	1.85	0.58
1:F:105:THR:HG21	1:F:111:ALA:HA	1.86	0.58
1:D:72:PRO:O	1:D:74:GLU:N	2.36	0.58
1:E:50:LEU:HD23	1:E:322:GLU:HG2	1.85	0.58
1:E:43:GLU:C	1:E:45:GLY:H	2.06	0.58
1:E:71:LEU:HD12	1:E:298:PRO:O	2.03	0.58
1:E:72:PRO:C	1:E:74:GLU:N	2.54	0.58
1:F:212:LEU:HD23	1:F:217:LEU:HB2	1.84	0.58
1:A:305:VAL:HG23	1:A:306:VAL:H	1.67	0.58
1:B:105:THR:HG21	1:B:111:ALA:HA	1.86	0.58
1:D:71:LEU:HD12	1:D:298:PRO:O	2.03	0.58
1:F:135:VAL:HG13	1:F:187:LEU:HD13	1.86	0.58
1:D:57:GLU:HA	1:D:60:LEU:HB2	1.86	0.58
1:E:5:MET:HE1	1:F:274:CYS:SG	2.44	0.58
1:E:105:THR:HG21	1:E:111:ALA:HA	1.86	0.58
1:C:57:GLU:HA	1:C:60:LEU:HB2	1.86	0.57
1:A:87:LEU:HD23	1:A:87:LEU:H	1.66	0.57
1:D:15:ASP:HB3	1:D:18:LEU:CB	2.30	0.57
1:E:212:LEU:HD23	1:E:217:LEU:HB2	1.84	0.57
1:A:105:THR:HG21	1:A:111:ALA:HA	1.86	0.57
1:B:173:LEU:HG	1:B:177:LEU:HD11	1.86	0.57
1:C:105:THR:HG21	1:C:111:ALA:HA	1.86	0.57
1:E:104:GLN:NE2	1:E:298:PRO:HB2	2.20	0.57
1:A:37:ILE:HG21	1:A:41:TYR:HE2	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:173:LEU:HG	1:A:177:LEU:HD11	1.87	0.57
1:D:180:LEU:N	1:D:180:LEU:HD23	2.19	0.57
1:B:57:GLU:HA	1:B:60:LEU:HB2	1.86	0.57
1:C:76:LEU:CD1	1:C:78:CYS:H	2.18	0.57
1:D:37:ILE:HG21	1:D:41:TYR:HE2	1.69	0.57
1:E:57:GLU:HA	1:E:60:LEU:HB2	1.86	0.57
1:E:173:LEU:HG	1:E:177:LEU:HD11	1.87	0.57
1:F:57:GLU:HA	1:F:60:LEU:HB2	1.86	0.57
1:A:76:LEU:CD1	1:A:78:CYS:H	2.18	0.57
1:A:135:VAL:HG13	1:A:187:LEU:HD13	1.86	0.57
1:B:180:LEU:HD23	1:B:180:LEU:N	2.19	0.57
1:D:193:HIS:HB3	1:D:197:GLY:N	2.20	0.57
1:E:49:GLN:NE2	1:F:67:ALA:HA	2.19	0.57
1:E:135:VAL:HG13	1:E:187:LEU:HD13	1.86	0.57
1:F:104:GLN:NE2	1:F:298:PRO:HB2	2.20	0.57
1:B:76:LEU:CD1	1:B:78:CYS:H	2.18	0.57
1:C:135:VAL:HG13	1:C:187:LEU:HD13	1.86	0.57
1:C:193:HIS:HB3	1:C:197:GLY:N	2.20	0.57
1:D:76:LEU:CD1	1:D:78:CYS:H	2.18	0.57
1:F:87:LEU:HD23	1:F:87:LEU:H	1.66	0.57
1:F:173:LEU:HG	1:F:177:LEU:HD11	1.87	0.57
1:B:193:HIS:HB3	1:B:197:GLY:N	2.20	0.57
1:E:180:LEU:N	1:E:180:LEU:HD23	2.19	0.57
1:E:249:PRO:O	1:E:250:ALA:HB2	2.03	0.57
1:B:135:VAL:HG13	1:B:187:LEU:HD13	1.86	0.57
1:E:37:ILE:HG21	1:E:41:TYR:HE2	1.69	0.57
1:F:76:LEU:HD23	1:F:79:TYR:HB2	1.86	0.57
1:A:320:LEU:O	1:A:323:VAL:HG12	2.05	0.56
1:A:403:ALA:O	1:A:406:ALA:HB3	2.05	0.56
1:C:180:LEU:N	1:C:180:LEU:HD23	2.19	0.56
1:A:15:ASP:HB3	1:A:18:LEU:CB	2.30	0.56
1:A:57:GLU:HA	1:A:60:LEU:HB2	1.86	0.56
1:A:193:HIS:HB3	1:A:197:GLY:N	2.20	0.56
1:D:105:THR:HG21	1:D:111:ALA:HA	1.86	0.56
1:D:320:LEU:O	1:D:323:VAL:HG12	2.05	0.56
1:E:76:LEU:CD1	1:E:78:CYS:H	2.18	0.56
1:E:224:ALA:HA	1:E:255:SER:HB3	1.87	0.56
1:F:37:ILE:HG21	1:F:41:TYR:HE2	1.69	0.56
1:F:76:LEU:CD1	1:F:78:CYS:H	2.18	0.56
1:A:180:LEU:N	1:A:180:LEU:HD23	2.20	0.56
1:B:76:LEU:HD12	1:B:77:ASN:N	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:104:GLN:NE2	1:B:298:PRO:HB2	2.20	0.56
1:C:37:ILE:HG21	1:C:41:TYR:HE2	1.69	0.56
1:C:104:GLN:NE2	1:C:298:PRO:HB2	2.20	0.56
1:C:403:ALA:O	1:C:406:ALA:HB3	2.06	0.56
1:D:80:ARG:HG3	1:D:102:THR:HB	1.88	0.56
1:E:6:PHE:HE1	1:F:249:PRO:CB	2.18	0.56
1:E:403:ALA:O	1:E:406:ALA:HB3	2.05	0.56
1:F:193:HIS:HB3	1:F:197:GLY:N	2.20	0.56
1:F:320:LEU:O	1:F:323:VAL:HG12	2.05	0.56
1:A:80:ARG:HG3	1:A:102:THR:HB	1.88	0.56
1:B:177:LEU:O	1:B:180:LEU:HG	2.06	0.56
1:A:76:LEU:HD23	1:A:79:TYR:HB2	1.86	0.56
1:A:104:GLN:NE2	1:A:298:PRO:HB2	2.20	0.56
1:A:177:LEU:O	1:A:180:LEU:HG	2.06	0.56
1:B:320:LEU:O	1:B:323:VAL:HG12	2.05	0.56
1:C:320:LEU:O	1:C:323:VAL:HG12	2.05	0.56
1:E:204:GLN:O	1:E:208:VAL:HG23	2.06	0.56
1:E:372:ARG:O	1:E:376:GLU:HB2	2.06	0.56
1:A:382:ILE:HG23	1:A:384:SER:N	2.18	0.56
1:A:397:VAL:C	1:A:400:VAL:HG23	2.26	0.56
1:B:204:GLN:O	1:B:208:VAL:HG23	2.06	0.56
1:B:205:TRP:HA	1:B:208:VAL:CG2	2.36	0.56
1:C:76:LEU:HD12	1:C:77:ASN:N	2.20	0.56
1:E:76:LEU:HD12	1:E:77:ASN:N	2.20	0.56
1:F:180:LEU:N	1:F:180:LEU:HD23	2.19	0.56
1:F:224:ALA:HA	1:F:255:SER:HB3	1.87	0.56
1:A:104:GLN:NE2	1:A:298:PRO:CB	2.69	0.56
1:A:224:ALA:HA	1:A:255:SER:HB3	1.87	0.56
1:A:372:ARG:O	1:A:376:GLU:HB2	2.06	0.56
1:C:80:ARG:HG3	1:C:102:THR:HB	1.88	0.56
1:D:135:VAL:HG13	1:D:187:LEU:HD13	1.86	0.56
1:D:382:ILE:HG23	1:D:384:SER:N	2.18	0.56
1:E:80:ARG:HG3	1:E:102:THR:HB	1.88	0.56
1:E:104:GLN:NE2	1:E:298:PRO:CB	2.69	0.56
1:E:382:ILE:HG23	1:E:384:SER:N	2.18	0.56
1:E:397:VAL:C	1:E:400:VAL:HG23	2.26	0.56
1:F:76:LEU:HD12	1:F:77:ASN:N	2.21	0.56
1:F:397:VAL:C	1:F:400:VAL:HG23	2.26	0.56
1:F:403:ALA:O	1:F:406:ALA:HB3	2.05	0.56
1:A:334:ARG:NH2	1:A:357:ARG:HA	2.21	0.56
1:B:76:LEU:HD23	1:B:79:TYR:HB2	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:403:ALA:O	1:B:406:ALA:HB3	2.06	0.56
1:D:76:LEU:HD23	1:D:79:TYR:HB2	1.86	0.56
1:D:76:LEU:HD12	1:D:77:ASN:N	2.20	0.56
1:D:205:TRP:HA	1:D:208:VAL:CG2	2.36	0.56
1:D:274:CYS:HB3	1:D:279:ALA:HB3	1.88	0.56
1:E:15:ASP:HB3	1:E:18:LEU:CB	2.30	0.56
1:E:193:HIS:HB3	1:E:197:GLY:N	2.20	0.56
1:E:245:SER:O	1:E:247:GLY:N	2.39	0.56
1:F:40:TYR:HD1	1:F:359:MET:HE2	1.70	0.56
1:A:282:ARG:HB3	1:B:11:ALA:HB2	1.88	0.56
1:B:37:ILE:HG21	1:B:41:TYR:HE2	1.69	0.56
1:B:224:ALA:HA	1:B:255:SER:HB3	1.87	0.56
1:B:397:VAL:C	1:B:400:VAL:HG23	2.26	0.56
1:C:173:LEU:HG	1:C:177:LEU:HD11	1.86	0.56
1:C:177:LEU:O	1:C:180:LEU:HG	2.06	0.56
1:C:205:TRP:HA	1:C:208:VAL:CG2	2.36	0.56
1:D:224:ALA:HA	1:D:255:SER:HB3	1.87	0.56
1:E:177:LEU:O	1:E:180:LEU:HG	2.06	0.56
1:E:195:PRO:HB2	1:E:386:ARG:HB2	1.88	0.56
1:E:257:SER:HB3	1:E:263:TYR:HA	1.88	0.56
1:A:204:GLN:O	1:A:208:VAL:HG23	2.06	0.55
1:B:257:SER:HB3	1:B:263:TYR:HA	1.88	0.55
1:B:372:ARG:O	1:B:376:GLU:HB2	2.06	0.55
1:F:205:TRP:HA	1:F:208:VAL:CG2	2.36	0.55
1:A:76:LEU:HD12	1:A:77:ASN:N	2.20	0.55
1:A:103:ILE:O	1:A:103:ILE:HG13	2.06	0.55
1:A:195:PRO:HB2	1:A:386:ARG:HB2	1.88	0.55
1:A:245:SER:O	1:A:247:GLY:N	2.39	0.55
1:B:245:SER:O	1:B:247:GLY:N	2.39	0.55
1:B:274:CYS:HB3	1:B:279:ALA:HB3	1.88	0.55
1:C:204:GLN:O	1:C:208:VAL:HG23	2.06	0.55
1:C:257:SER:HB3	1:C:263:TYR:HA	1.88	0.55
1:D:104:GLN:NE2	1:D:298:PRO:HB2	2.20	0.55
1:D:204:GLN:O	1:D:208:VAL:HG23	2.06	0.55
1:D:245:SER:O	1:D:247:GLY:N	2.39	0.55
1:E:334:ARG:NH2	1:E:357:ARG:HA	2.21	0.55
1:F:177:LEU:O	1:F:180:LEU:HG	2.06	0.55
1:F:204:GLN:O	1:F:208:VAL:HG23	2.06	0.55
1:F:245:SER:O	1:F:247:GLY:N	2.39	0.55
1:B:104:GLN:NE2	1:B:298:PRO:CB	2.69	0.55
1:D:104:GLN:NE2	1:D:298:PRO:CB	2.69	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:397:VAL:C	1:D:400:VAL:HG23	2.26	0.55
1:E:76:LEU:HD23	1:E:79:TYR:HB2	1.86	0.55
1:E:103:ILE:O	1:E:103:ILE:HG13	2.07	0.55
1:E:205:TRP:HA	1:E:208:VAL:CG2	2.36	0.55
1:F:104:GLN:NE2	1:F:298:PRO:CB	2.69	0.55
1:A:256:PHE:HB2	1:A:267:VAL:O	2.07	0.55
1:B:80:ARG:HG3	1:B:102:THR:HB	1.88	0.55
1:C:104:GLN:NE2	1:C:298:PRO:CB	2.69	0.55
1:C:224:ALA:HA	1:C:255:SER:HB3	1.87	0.55
1:C:397:VAL:C	1:C:400:VAL:HG23	2.26	0.55
1:D:177:LEU:O	1:D:180:LEU:HG	2.06	0.55
1:D:403:ALA:O	1:D:406:ALA:HB3	2.05	0.55
1:F:372:ARG:O	1:F:376:GLU:HB2	2.06	0.55
1:B:334:ARG:NH2	1:B:357:ARG:HA	2.21	0.55
1:B:390:ALA:C	1:B:392:LEU:H	2.10	0.55
1:C:190:PRO:HA	1:C:205:TRP:CZ2	2.41	0.55
1:C:276:ASP:O	1:C:279:ALA:N	2.39	0.55
1:D:334:ARG:NH2	1:D:357:ARG:HA	2.21	0.55
1:A:205:TRP:HA	1:A:208:VAL:CG2	2.36	0.55
1:C:40:TYR:HD1	1:C:359:MET:HE2	1.69	0.55
1:E:184:SER:N	1:E:217:LEU:HD23	2.20	0.55
1:E:274:CYS:HB3	1:E:279:ALA:HB3	1.89	0.55
1:F:334:ARG:NH2	1:F:357:ARG:HA	2.21	0.55
1:F:390:ALA:C	1:F:392:LEU:H	2.10	0.55
1:C:76:LEU:HD23	1:C:79:TYR:HB2	1.86	0.55
1:E:125:GLU:OE1	1:E:125:GLU:HA	2.07	0.55
1:F:190:PRO:HA	1:F:205:TRP:CZ2	2.41	0.55
1:A:190:PRO:HA	1:A:205:TRP:CZ2	2.41	0.55
1:C:372:ARG:O	1:C:376:GLU:HB2	2.06	0.55
1:D:173:LEU:HG	1:D:177:LEU:HD11	1.86	0.55
1:D:190:PRO:HA	1:D:205:TRP:CZ2	2.42	0.55
1:E:133:VAL:HG13	1:E:185:ILE:HB	1.89	0.55
1:E:190:PRO:HA	1:E:205:TRP:CZ2	2.41	0.55
1:E:307:ALA:C	1:E:309:VAL:H	2.10	0.55
1:A:166:ASN:HB3	1:A:352:TYR:HB3	1.89	0.55
1:C:274:CYS:HB3	1:C:279:ALA:HB3	1.88	0.55
1:D:195:PRO:HB2	1:D:386:ARG:HB2	1.88	0.55
1:E:320:LEU:O	1:E:323:VAL:HG12	2.05	0.55
1:A:257:SER:HB3	1:A:263:TYR:HA	1.88	0.55
1:B:53:VAL:O	1:B:56:ALA:HB3	2.07	0.55
1:B:195:PRO:HB2	1:B:386:ARG:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:245:SER:O	1:C:247:GLY:N	2.39	0.55
1:D:125:GLU:HA	1:D:125:GLU:OE1	2.07	0.55
1:E:256:PHE:HB2	1:E:267:VAL:O	2.07	0.55
1:E:390:ALA:C	1:E:392:LEU:H	2.10	0.55
1:A:125:GLU:HA	1:A:125:GLU:OE1	2.07	0.54
1:A:307:ALA:C	1:A:309:VAL:H	2.10	0.54
1:A:405:ALA:HA	1:A:408:MET:CE	2.38	0.54
1:B:133:VAL:HG13	1:B:185:ILE:HB	1.89	0.54
1:B:239:ALA:C	1:B:243:ILE:HD12	2.28	0.54
1:B:256:PHE:HB2	1:B:267:VAL:O	2.07	0.54
1:C:142:ASN:N	1:C:142:ASN:ND2	2.55	0.54
1:D:103:ILE:HG13	1:D:103:ILE:O	2.06	0.54
1:D:256:PHE:HB2	1:D:267:VAL:O	2.07	0.54
1:D:257:SER:HB3	1:D:263:TYR:HA	1.88	0.54
1:D:372:ARG:O	1:D:376:GLU:HB2	2.06	0.54
1:E:405:ALA:HA	1:E:408:MET:CE	2.38	0.54
1:A:390:ALA:C	1:A:392:LEU:H	2.10	0.54
1:B:276:ASP:O	1:B:279:ALA:N	2.39	0.54
1:C:184:SER:N	1:C:217:LEU:HD23	2.20	0.54
1:C:195:PRO:HB2	1:C:386:ARG:HB2	1.88	0.54
1:D:53:VAL:O	1:D:56:ALA:HB3	2.07	0.54
1:E:166:ASN:HB3	1:E:352:TYR:HB3	1.89	0.54
1:F:80:ARG:HG3	1:F:102:THR:HB	1.88	0.54
1:F:195:PRO:HB2	1:F:386:ARG:HB2	1.88	0.54
1:A:274:CYS:HB3	1:A:279:ALA:HB3	1.88	0.54
1:C:334:ARG:NH2	1:C:357:ARG:HA	2.21	0.54
1:D:142:ASN:N	1:D:142:ASN:ND2	2.55	0.54
1:E:113:LYS:HE2	1:F:294:ASN:HA	1.88	0.54
1:E:239:ALA:C	1:E:243:ILE:HD12	2.28	0.54
1:F:239:ALA:C	1:F:243:ILE:HD12	2.28	0.54
1:F:257:SER:HB3	1:F:263:TYR:HA	1.88	0.54
1:F:405:ALA:HA	1:F:408:MET:CE	2.38	0.54
1:B:142:ASN:N	1:B:142:ASN:ND2	2.55	0.54
1:B:190:PRO:HA	1:B:205:TRP:CZ2	2.42	0.54
1:C:256:PHE:HB2	1:C:267:VAL:O	2.07	0.54
1:D:166:ASN:HB3	1:D:352:TYR:HB3	1.90	0.54
1:E:212:LEU:CD2	1:E:217:LEU:HB2	2.38	0.54
1:E:263:TYR:HB3	1:F:70:TYR:CE2	2.43	0.54
1:E:294:ASN:HA	1:F:113:LYS:HE2	1.88	0.54
1:F:125:GLU:OE1	1:F:125:GLU:HA	2.07	0.54
1:F:222:ASP:OD1	1:F:223:ILE:N	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:405:ALA:HA	1:A:408:MET:HE3	1.88	0.54
1:B:222:ASP:OD1	1:B:223:ILE:N	2.41	0.54
1:B:382:ILE:HG23	1:B:384:SER:N	2.18	0.54
1:C:51:GLN:HE21	1:C:51:GLN:HA	1.73	0.54
1:C:82:ALA:O	1:C:85:PRO:HG2	2.08	0.54
1:C:125:GLU:OE1	1:C:125:GLU:HA	2.07	0.54
1:D:276:ASP:O	1:D:279:ALA:N	2.39	0.54
1:E:405:ALA:HA	1:E:408:MET:HE3	1.89	0.54
1:F:256:PHE:HB2	1:F:267:VAL:O	2.07	0.54
1:A:82:ALA:O	1:A:85:PRO:HG2	2.08	0.54
1:B:51:GLN:HA	1:B:51:GLN:HE21	1.73	0.54
1:B:306:VAL:O	1:B:307:ALA:O	2.26	0.54
1:C:53:VAL:O	1:C:56:ALA:HB3	2.07	0.54
1:C:239:ALA:C	1:C:243:ILE:HD12	2.28	0.54
1:C:306:VAL:O	1:C:307:ALA:O	2.26	0.54
1:D:212:LEU:CD2	1:D:217:LEU:HB2	2.38	0.54
1:D:390:ALA:C	1:D:392:LEU:H	2.10	0.54
1:F:51:GLN:HE21	1:F:51:GLN:HA	1.73	0.54
1:F:212:LEU:CD2	1:F:217:LEU:HB2	2.38	0.54
1:F:276:ASP:O	1:F:279:ALA:N	2.39	0.54
1:A:51:GLN:HE21	1:A:51:GLN:HA	1.73	0.54
1:A:222:ASP:OD1	1:A:223:ILE:N	2.41	0.54
1:E:211:ILE:HA	1:E:214:ALA:HB3	1.90	0.54
1:E:373:LEU:HA	1:E:377:PHE:HD1	1.73	0.54
1:F:212:LEU:HD11	1:F:219:PRO:HB3	1.90	0.54
1:F:240:ILE:HA	1:F:243:ILE:HD12	1.89	0.54
1:F:274:CYS:HB3	1:F:279:ALA:HB3	1.88	0.54
1:A:40:TYR:HD1	1:A:359:MET:HE2	1.72	0.54
1:A:212:LEU:CD2	1:A:217:LEU:HB2	2.38	0.54
1:B:166:ASN:HB3	1:B:352:TYR:HB3	1.89	0.54
1:B:405:ALA:HA	1:B:408:MET:CE	2.38	0.54
1:D:222:ASP:OD1	1:D:223:ILE:N	2.41	0.54
1:E:222:ASP:OD1	1:E:223:ILE:N	2.41	0.54
1:B:191:CYS:HB2	1:B:236:ASP:HB3	1.90	0.54
1:B:240:ILE:HA	1:B:243:ILE:HD12	1.89	0.54
1:D:51:GLN:HA	1:D:51:GLN:HE21	1.73	0.54
1:D:306:VAL:O	1:D:307:ALA:O	2.26	0.54
1:F:133:VAL:HG13	1:F:185:ILE:HB	1.89	0.54
1:A:53:VAL:O	1:A:56:ALA:HB3	2.08	0.53
1:A:306:VAL:O	1:A:307:ALA:O	2.26	0.53
1:B:184:SER:N	1:B:217:LEU:HD23	2.20	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:212:LEU:CD2	1:C:217:LEU:HB2	2.38	0.53
1:C:320:LEU:O	1:C:320:LEU:HD12	2.08	0.53
1:D:373:LEU:HA	1:D:377:PHE:HD1	1.73	0.53
1:D:400:VAL:HB	1:D:404:PHE:HZ	1.74	0.53
1:F:373:LEU:HA	1:F:377:PHE:HD1	1.73	0.53
1:A:276:ASP:O	1:A:279:ALA:N	2.39	0.53
1:A:373:LEU:HA	1:A:377:PHE:HD1	1.73	0.53
1:A:400:VAL:HB	1:A:404:PHE:HZ	1.74	0.53
1:B:373:LEU:HA	1:B:377:PHE:HD1	1.73	0.53
1:C:166:ASN:HB3	1:C:352:TYR:HB3	1.89	0.53
1:C:212:LEU:HD11	1:C:219:PRO:HB3	1.90	0.53
1:C:274:CYS:SG	1:D:5:MET:HE3	2.44	0.53
1:C:279:ALA:C	1:C:281:GLY:N	2.62	0.53
1:C:282:ARG:NH2	1:D:7:GLN:CA	2.71	0.53
1:C:382:ILE:HG23	1:C:384:SER:N	2.18	0.53
1:C:405:ALA:HA	1:C:408:MET:CE	2.38	0.53
1:D:239:ALA:C	1:D:243:ILE:HD12	2.28	0.53
1:D:279:ALA:C	1:D:281:GLY:N	2.62	0.53
1:D:405:ALA:HA	1:D:408:MET:CE	2.38	0.53
1:E:279:ALA:C	1:E:281:GLY:N	2.62	0.53
1:E:400:VAL:HB	1:E:404:PHE:HZ	1.74	0.53
1:F:320:LEU:O	1:F:320:LEU:HD12	2.08	0.53
1:A:239:ALA:C	1:A:243:ILE:HD12	2.28	0.53
1:B:125:GLU:OE1	1:B:125:GLU:HA	2.07	0.53
1:C:237:ALA:O	1:C:238:TYR:C	2.47	0.53
1:C:400:VAL:HB	1:C:404:PHE:HZ	1.74	0.53
1:E:212:LEU:HD11	1:E:219:PRO:HB3	1.90	0.53
1:E:320:LEU:O	1:E:320:LEU:HD12	2.08	0.53
1:F:53:VAL:O	1:F:56:ALA:HB3	2.08	0.53
1:A:212:LEU:HD11	1:A:219:PRO:HB3	1.90	0.53
1:B:237:ALA:O	1:B:238:TYR:C	2.47	0.53
1:B:400:VAL:HB	1:B:404:PHE:HZ	1.74	0.53
1:C:222:ASP:OD1	1:C:223:ILE:N	2.41	0.53
1:C:307:ALA:C	1:C:309:VAL:H	2.11	0.53
1:E:51:GLN:HA	1:E:51:GLN:HE21	1.73	0.53
1:F:166:ASN:HB3	1:F:352:TYR:HB3	1.89	0.53
1:F:306:VAL:O	1:F:307:ALA:O	2.26	0.53
1:A:133:VAL:HG13	1:A:185:ILE:HB	1.89	0.53
1:A:240:ILE:HA	1:A:243:ILE:HD12	1.89	0.53
1:A:249:PRO:HB2	1:B:6:PHE:HE1	1.71	0.53
1:B:82:ALA:O	1:B:85:PRO:HG2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:254:ASN:HD22	1:B:255:SER:H	1.56	0.53
1:C:390:ALA:C	1:C:392:LEU:H	2.10	0.53
1:D:305:VAL:O	1:D:309:VAL:HG23	2.09	0.53
1:E:306:VAL:O	1:E:307:ALA:O	2.26	0.53
1:F:237:ALA:O	1:F:238:TYR:C	2.47	0.53
1:A:142:ASN:N	1:A:142:ASN:ND2	2.55	0.53
1:A:184:SER:N	1:A:217:LEU:HD23	2.20	0.53
1:B:307:ALA:C	1:B:309:VAL:H	2.10	0.53
1:E:53:VAL:O	1:E:56:ALA:HB3	2.08	0.53
1:E:263:TYR:CG	1:F:70:TYR:CD2	2.96	0.53
1:E:263:TYR:CG	1:F:70:TYR:HD2	2.27	0.53
1:F:254:ASN:HD22	1:F:255:SER:H	1.56	0.53
1:F:305:VAL:O	1:F:309:VAL:HG23	2.09	0.53
1:A:211:ILE:HA	1:A:214:ALA:HB3	1.90	0.53
1:B:212:LEU:CD2	1:B:217:LEU:HB2	2.38	0.53
1:B:320:LEU:O	1:B:320:LEU:HD12	2.08	0.53
1:C:133:VAL:HG13	1:C:185:ILE:HB	1.89	0.53
1:D:240:ILE:HA	1:D:243:ILE:HD12	1.89	0.53
1:D:307:ALA:C	1:D:309:VAL:H	2.10	0.53
1:F:82:ALA:O	1:F:85:PRO:HG2	2.08	0.53
1:F:274:CYS:HB3	1:F:279:ALA:CB	2.39	0.53
1:F:307:ALA:C	1:F:309:VAL:H	2.11	0.53
1:A:305:VAL:O	1:A:309:VAL:HG23	2.09	0.53
1:B:212:LEU:HD11	1:B:219:PRO:HB3	1.90	0.53
1:C:240:ILE:HA	1:C:243:ILE:HD12	1.89	0.53
1:C:274:CYS:HB3	1:C:279:ALA:CB	2.39	0.53
1:D:82:ALA:O	1:D:85:PRO:HG2	2.08	0.53
1:D:274:CYS:HB3	1:D:279:ALA:CB	2.39	0.53
1:E:240:ILE:HA	1:E:243:ILE:HD12	1.89	0.53
1:F:400:VAL:HB	1:F:404:PHE:HZ	1.73	0.53
1:B:40:TYR:HD1	1:B:359:MET:HE2	1.71	0.53
1:B:279:ALA:C	1:B:281:GLY:N	2.62	0.53
1:D:76:LEU:CG	1:D:79:TYR:HB2	2.39	0.53
1:D:133:VAL:HG13	1:D:185:ILE:HB	1.89	0.53
1:E:142:ASN:N	1:E:142:ASN:ND2	2.55	0.53
1:E:254:ASN:HD22	1:E:255:SER:H	1.56	0.53
1:E:274:CYS:HB3	1:E:279:ALA:CB	2.39	0.53
1:A:191:CYS:HB2	1:A:236:ASP:HB3	1.90	0.52
1:B:305:VAL:O	1:B:309:VAL:HG23	2.09	0.52
1:C:254:ASN:HD22	1:C:255:SER:H	1.56	0.52
1:C:373:LEU:HA	1:C:377:PHE:HD1	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:254:ASN:HD22	1:D:255:SER:H	1.56	0.52
1:E:27:ASP:OD2	1:E:29:ARG:HD2	2.09	0.52
1:E:82:ALA:O	1:E:85:PRO:HG2	2.08	0.52
1:A:274:CYS:HB3	1:A:279:ALA:CB	2.39	0.52
1:A:279:ALA:C	1:A:281:GLY:N	2.62	0.52
1:C:27:ASP:OD2	1:C:29:ARG:HD2	2.09	0.52
1:E:326:MET:O	1:E:330:ILE:HG13	2.10	0.52
1:F:241:ARG:N	1:F:241:ARG:HD2	2.24	0.52
1:F:279:ALA:C	1:F:281:GLY:N	2.62	0.52
1:A:27:ASP:OD2	1:A:29:ARG:HD2	2.09	0.52
1:A:241:ARG:HD2	1:A:241:ARG:N	2.24	0.52
1:B:274:CYS:HB3	1:B:279:ALA:CB	2.39	0.52
1:D:211:ILE:HA	1:D:214:ALA:HB3	1.90	0.52
1:D:320:LEU:O	1:D:320:LEU:HD12	2.08	0.52
1:D:326:MET:O	1:D:330:ILE:HG13	2.09	0.52
1:E:237:ALA:O	1:E:238:TYR:C	2.47	0.52
1:F:76:LEU:CG	1:F:79:TYR:HB2	2.39	0.52
1:F:103:ILE:HG13	1:F:103:ILE:O	2.06	0.52
1:F:211:ILE:HA	1:F:214:ALA:HB3	1.90	0.52
1:A:320:LEU:O	1:A:320:LEU:HD12	2.08	0.52
1:B:103:ILE:O	1:B:103:ILE:HG13	2.07	0.52
1:C:191:CYS:HB2	1:C:236:ASP:HB3	1.90	0.52
1:C:326:MET:O	1:C:330:ILE:HG13	2.10	0.52
1:D:240:ILE:N	1:D:243:ILE:HD12	2.25	0.52
1:E:227:GLY:O	1:E:327:ARG:HD3	2.09	0.52
1:E:240:ILE:N	1:E:243:ILE:HD12	2.25	0.52
1:F:212:LEU:HD13	1:F:219:PRO:HB3	1.92	0.52
1:B:27:ASP:OD2	1:B:29:ARG:HD2	2.09	0.52
1:C:103:ILE:O	1:C:103:ILE:HG13	2.06	0.52
1:D:184:SER:N	1:D:217:LEU:HD23	2.20	0.52
1:E:118:PHE:HE1	1:E:122:TYR:HD2	1.58	0.52
1:F:326:MET:O	1:F:330:ILE:HG13	2.10	0.52
1:F:382:ILE:HG23	1:F:384:SER:N	2.18	0.52
1:A:111:ALA:HB1	1:A:270:LEU:HB2	1.92	0.52
1:B:340:VAL:HB	1:B:401:ALA:HB1	1.92	0.52
1:C:211:ILE:HA	1:C:214:ALA:HB3	1.90	0.52
1:D:111:ALA:HB1	1:D:270:LEU:HB2	1.92	0.52
1:D:237:ALA:O	1:D:238:TYR:C	2.47	0.52
1:E:76:LEU:CG	1:E:79:TYR:HB2	2.39	0.52
1:E:263:TYR:HB3	1:F:70:TYR:CD2	2.41	0.52
1:A:76:LEU:CG	1:A:79:TYR:HB2	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:326:MET:O	1:B:330:ILE:HG13	2.10	0.52
1:C:263:TYR:HB2	1:D:70:TYR:CD2	2.43	0.52
1:C:305:VAL:O	1:C:309:VAL:HG23	2.09	0.52
1:D:118:PHE:HE1	1:D:122:TYR:HD2	1.58	0.52
1:D:191:CYS:HB2	1:D:236:ASP:HB3	1.90	0.52
1:D:340:VAL:HB	1:D:401:ALA:HB1	1.92	0.52
1:E:305:VAL:O	1:E:309:VAL:HG23	2.09	0.52
1:F:240:ILE:N	1:F:243:ILE:HD12	2.25	0.52
1:A:240:ILE:N	1:A:243:ILE:HD12	2.25	0.52
1:B:76:LEU:CG	1:B:79:TYR:HB2	2.39	0.52
1:C:227:GLY:O	1:C:327:ARG:HD3	2.09	0.52
1:C:340:VAL:HB	1:C:401:ALA:HB1	1.92	0.52
1:D:212:LEU:HD11	1:D:219:PRO:HB3	1.90	0.52
1:F:27:ASP:OD2	1:F:29:ARG:HD2	2.09	0.52
1:A:118:PHE:HE1	1:A:122:TYR:HD2	1.58	0.52
1:A:188:LEU:HD12	1:A:188:LEU:N	2.25	0.52
1:B:240:ILE:N	1:B:243:ILE:HD12	2.25	0.52
1:B:241:ARG:N	1:B:241:ARG:HD2	2.24	0.52
1:B:405:ALA:HA	1:B:408:MET:HE3	1.92	0.52
1:D:27:ASP:OD2	1:D:29:ARG:HD2	2.09	0.52
1:A:212:LEU:HD13	1:A:219:PRO:HB3	1.92	0.52
1:B:227:GLY:O	1:B:327:ARG:HD3	2.09	0.52
1:C:241:ARG:N	1:C:241:ARG:HD2	2.24	0.52
1:D:241:ARG:HD2	1:D:241:ARG:N	2.24	0.52
1:E:40:TYR:HD1	1:E:359:MET:HE2	1.75	0.52
1:E:266:ARG:O	1:E:267:VAL:HG13	2.10	0.52
1:A:66:GLY:O	1:A:67:ALA:HB3	2.10	0.51
1:B:66:GLY:O	1:B:67:ALA:HB3	2.10	0.51
1:B:211:ILE:HA	1:B:214:ALA:HB3	1.90	0.51
1:C:208:VAL:O	1:C:211:ILE:HD12	2.10	0.51
1:C:240:ILE:N	1:C:243:ILE:HD12	2.25	0.51
1:F:340:VAL:HB	1:F:401:ALA:HB1	1.92	0.51
1:A:254:ASN:HD22	1:A:255:SER:H	1.56	0.51
1:A:265:GLU:HG3	1:A:302:GLY:CA	2.40	0.51
1:A:326:MET:O	1:A:330:ILE:HG13	2.10	0.51
1:A:404:PHE:C	1:A:406:ALA:N	2.64	0.51
1:B:118:PHE:HE1	1:B:122:TYR:HD2	1.58	0.51
1:C:382:ILE:HG21	1:C:386:ARG:HB3	1.92	0.51
1:D:66:GLY:O	1:D:67:ALA:HB3	2.10	0.51
1:D:227:GLY:O	1:D:327:ARG:HD3	2.09	0.51
1:E:6:PHE:HE1	1:F:249:PRO:HB2	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:188:LEU:HD12	1:E:188:LEU:N	2.25	0.51
1:E:212:LEU:HD13	1:E:219:PRO:HB3	1.92	0.51
1:E:276:ASP:O	1:E:279:ALA:N	2.39	0.51
1:F:208:VAL:O	1:F:211:ILE:HD12	2.10	0.51
1:A:266:ARG:O	1:A:267:VAL:HG13	2.10	0.51
1:B:382:ILE:HG21	1:B:386:ARG:HB3	1.92	0.51
1:C:76:LEU:CG	1:C:79:TYR:HB2	2.39	0.51
1:D:188:LEU:HD12	1:D:188:LEU:N	2.25	0.51
1:E:241:ARG:N	1:E:241:ARG:HD2	2.24	0.51
1:E:382:ILE:HG21	1:E:386:ARG:HB3	1.92	0.51
1:A:237:ALA:O	1:A:238:TYR:C	2.47	0.51
1:A:340:VAL:HB	1:A:401:ALA:HB1	1.92	0.51
1:B:212:LEU:HD13	1:B:219:PRO:HB3	1.92	0.51
1:C:66:GLY:O	1:C:67:ALA:HB3	2.10	0.51
1:C:111:ALA:HB1	1:C:270:LEU:HB2	1.92	0.51
1:D:212:LEU:HD13	1:D:219:PRO:HB3	1.92	0.51
1:E:111:ALA:HB1	1:E:270:LEU:HB2	1.92	0.51
1:F:191:CYS:HB2	1:F:236:ASP:HB3	1.90	0.51
1:F:266:ARG:O	1:F:267:VAL:HG13	2.10	0.51
1:C:118:PHE:HE1	1:C:122:TYR:HD2	1.58	0.51
1:C:188:LEU:HD12	1:C:188:LEU:N	2.25	0.51
1:D:382:ILE:HG21	1:D:386:ARG:HB3	1.92	0.51
1:D:405:ALA:HA	1:D:408:MET:HE3	1.92	0.51
1:E:265:GLU:HG3	1:E:302:GLY:CA	2.41	0.51
1:A:227:GLY:O	1:A:327:ARG:HD3	2.09	0.51
1:A:382:ILE:HG21	1:A:386:ARG:HB3	1.92	0.51
1:B:111:ALA:HB1	1:B:270:LEU:HB2	1.92	0.51
1:B:404:PHE:C	1:B:406:ALA:N	2.64	0.51
1:C:404:PHE:C	1:C:406:ALA:N	2.64	0.51
1:F:227:GLY:O	1:F:327:ARG:HD3	2.09	0.51
1:F:382:ILE:HG21	1:F:386:ARG:HB3	1.92	0.51
1:D:208:VAL:O	1:D:211:ILE:HD12	2.10	0.51
1:E:66:GLY:O	1:E:67:ALA:HB3	2.10	0.51
1:E:208:VAL:O	1:E:211:ILE:HD12	2.10	0.51
1:A:11:ALA:HB2	1:B:282:ARG:HB3	1.93	0.51
1:B:208:VAL:O	1:B:211:ILE:HD12	2.10	0.51
1:B:266:ARG:O	1:B:267:VAL:HG13	2.10	0.51
1:D:404:PHE:C	1:D:406:ALA:N	2.64	0.51
1:E:102:THR:HA	1:E:271:SER:HB3	1.93	0.51
1:F:66:GLY:O	1:F:67:ALA:HB3	2.10	0.51
1:F:118:PHE:HE1	1:F:122:TYR:HD2	1.58	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:77:ASN:O	1:A:81:HIS:HB2	2.11	0.51
1:A:208:VAL:O	1:A:211:ILE:HD12	2.10	0.51
1:A:336:GLU:O	1:A:340:VAL:HG22	2.11	0.51
1:C:102:THR:HA	1:C:271:SER:HB3	1.93	0.51
1:C:265:GLU:HG3	1:C:302:GLY:CA	2.40	0.51
1:C:308:ALA:HA	1:C:311:ASN:HB2	1.93	0.51
1:E:191:CYS:HB2	1:E:236:ASP:HB3	1.90	0.51
1:E:205:TRP:HA	1:E:208:VAL:HG21	1.93	0.51
1:E:340:VAL:HB	1:E:401:ALA:HB1	1.92	0.51
1:A:102:THR:HA	1:A:271:SER:HB3	1.93	0.50
1:B:336:GLU:O	1:B:340:VAL:HG22	2.11	0.50
1:C:77:ASN:O	1:C:81:HIS:HB2	2.11	0.50
1:C:212:LEU:HD13	1:C:219:PRO:HB3	1.92	0.50
1:C:401:ALA:HA	1:C:404:PHE:CE2	2.46	0.50
1:D:102:THR:HA	1:D:271:SER:HB3	1.93	0.50
1:D:308:ALA:HA	1:D:311:ASN:HB2	1.93	0.50
1:E:77:ASN:O	1:E:81:HIS:HB2	2.11	0.50
1:B:265:GLU:HG3	1:B:302:GLY:CA	2.41	0.50
1:E:76:LEU:HD12	1:E:77:ASN:H	1.77	0.50
1:F:102:THR:HA	1:F:271:SER:HB3	1.93	0.50
1:F:140:TRP:HE3	1:F:143:HIS:HD2	1.59	0.50
1:B:102:THR:HA	1:B:271:SER:HB3	1.93	0.50
1:C:266:ARG:O	1:C:267:VAL:HG13	2.10	0.50
1:D:266:ARG:O	1:D:267:VAL:HG13	2.10	0.50
1:D:401:ALA:HA	1:D:404:PHE:CE2	2.46	0.50
1:E:401:ALA:HA	1:E:404:PHE:CE2	2.46	0.50
1:A:190:PRO:HB3	1:A:239:ALA:CB	2.42	0.50
1:A:308:ALA:HA	1:A:311:ASN:HB2	1.93	0.50
1:D:77:ASN:O	1:D:81:HIS:HB2	2.11	0.50
1:F:190:PRO:HB3	1:F:239:ALA:CB	2.42	0.50
1:F:336:GLU:O	1:F:340:VAL:HG22	2.11	0.50
1:A:205:TRP:HA	1:A:208:VAL:HG21	1.93	0.50
1:B:190:PRO:HB3	1:B:239:ALA:CB	2.42	0.50
1:E:177:LEU:C	1:E:179:THR:H	2.15	0.50
1:E:190:PRO:HB3	1:E:239:ALA:CB	2.42	0.50
1:F:111:ALA:HB1	1:F:270:LEU:HB2	1.92	0.50
1:F:188:LEU:HD12	1:F:188:LEU:N	2.25	0.50
1:A:76:LEU:HD12	1:A:77:ASN:H	1.77	0.50
1:A:177:LEU:C	1:A:179:THR:H	2.15	0.50
1:A:401:ALA:HA	1:A:404:PHE:CE2	2.46	0.50
1:B:188:LEU:HD12	1:B:188:LEU:N	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:308:ALA:HA	1:B:311:ASN:HB2	1.93	0.50
1:D:190:PRO:HB3	1:D:239:ALA:CB	2.42	0.50
1:B:77:ASN:O	1:B:81:HIS:HB2	2.12	0.50
1:F:86:LEU:HB2	1:F:87:LEU:HD23	1.94	0.50
1:F:265:GLU:HG3	1:F:302:GLY:CA	2.40	0.50
1:F:401:ALA:HA	1:F:404:PHE:CE2	2.46	0.50
1:B:185:ILE:HD13	1:B:185:ILE:H	1.77	0.50
1:E:40:TYR:HB2	1:E:359:MET:HE1	1.94	0.50
1:E:185:ILE:HD13	1:E:185:ILE:H	1.77	0.50
1:E:185:ILE:HD13	1:E:185:ILE:N	2.27	0.50
1:E:274:CYS:SG	1:F:5:MET:HE3	2.52	0.50
1:F:209:ILE:O	1:F:212:LEU:N	2.45	0.50
1:A:185:ILE:HD13	1:A:185:ILE:N	2.27	0.49
1:B:140:TRP:HE3	1:B:143:HIS:HD2	1.59	0.49
1:C:185:ILE:HD13	1:C:185:ILE:N	2.27	0.49
1:C:205:TRP:HA	1:C:208:VAL:HG21	1.93	0.49
1:F:76:LEU:HD12	1:F:77:ASN:H	1.77	0.49
1:F:205:TRP:HA	1:F:208:VAL:HG21	1.93	0.49
1:F:242:ALA:HA	1:F:246:ALA:HB3	1.95	0.49
1:B:401:ALA:HA	1:B:404:PHE:CE2	2.46	0.49
1:C:86:LEU:HB2	1:C:87:LEU:HD23	1.94	0.49
1:D:336:GLU:O	1:D:340:VAL:HG22	2.11	0.49
1:A:6:PHE:HE1	1:B:249:PRO:HB2	1.76	0.49
1:B:93:PRO:O	1:B:97:GLN:HB2	2.13	0.49
1:C:76:LEU:HD12	1:C:77:ASN:H	1.77	0.49
1:C:93:PRO:O	1:C:97:GLN:HB2	2.13	0.49
1:C:382:ILE:CG2	1:C:385:GLY:H	2.25	0.49
1:D:171:ASN:O	1:D:173:LEU:N	2.45	0.49
1:D:177:LEU:C	1:D:179:THR:H	2.15	0.49
1:D:185:ILE:CD1	1:D:185:ILE:H	2.24	0.49
1:D:185:ILE:H	1:D:185:ILE:HD13	1.77	0.49
1:D:205:TRP:HA	1:D:208:VAL:HG21	1.93	0.49
1:E:372:ARG:HD3	1:E:407:VAL:HG13	1.94	0.49
1:F:77:ASN:O	1:F:81:HIS:HB2	2.11	0.49
1:F:382:ILE:CD1	1:F:386:ARG:HD3	2.36	0.49
1:A:145:ALA:O	1:A:149:GLY:N	2.46	0.49
1:B:171:ASN:O	1:B:173:LEU:N	2.45	0.49
1:B:185:ILE:HD13	1:B:185:ILE:N	2.27	0.49
1:B:223:ILE:HG23	1:B:254:ASN:ND2	2.27	0.49
1:B:247:GLY:O	1:B:248:LEU:HB2	2.12	0.49
1:C:223:ILE:HG23	1:C:254:ASN:ND2	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:372:ARG:HD3	1:D:407:VAL:HG13	1.94	0.49
1:E:145:ALA:O	1:E:149:GLY:N	2.45	0.49
1:E:171:ASN:O	1:E:173:LEU:N	2.45	0.49
1:E:336:GLU:O	1:E:340:VAL:HG22	2.11	0.49
1:F:382:ILE:CG2	1:F:385:GLY:H	2.25	0.49
1:A:42:ASN:ND2	1:A:44:ASP:HB2	2.28	0.49
1:A:86:LEU:HB2	1:A:87:LEU:HD23	1.94	0.49
1:A:140:TRP:HE3	1:A:143:HIS:HD2	1.59	0.49
1:A:247:GLY:O	1:A:248:LEU:HB2	2.12	0.49
1:B:86:LEU:HB2	1:B:87:LEU:HD23	1.94	0.49
1:B:372:ARG:HD3	1:B:407:VAL:HG13	1.94	0.49
1:C:42:ASN:ND2	1:C:44:ASP:HB2	2.28	0.49
1:C:185:ILE:HD13	1:C:185:ILE:H	1.77	0.49
1:C:190:PRO:HB3	1:C:239:ALA:CB	2.42	0.49
1:C:242:ALA:HA	1:C:246:ALA:HB3	1.95	0.49
1:C:247:GLY:O	1:C:248:LEU:HB2	2.12	0.49
1:C:336:GLU:O	1:C:340:VAL:HG22	2.11	0.49
1:D:42:ASN:ND2	1:D:44:ASP:HB2	2.28	0.49
1:D:86:LEU:HB2	1:D:87:LEU:HD23	1.94	0.49
1:E:308:ALA:HA	1:E:311:ASN:HB2	1.93	0.49
1:E:382:ILE:CG2	1:E:385:GLY:H	2.25	0.49
1:F:185:ILE:H	1:F:185:ILE:HD13	1.77	0.49
1:F:247:GLY:O	1:F:248:LEU:HB2	2.12	0.49
1:F:405:ALA:HA	1:F:408:MET:HE3	1.94	0.49
1:B:238:TYR:O	1:B:239:ALA:C	2.51	0.49
1:B:242:ALA:HA	1:B:246:ALA:HB3	1.94	0.49
1:C:140:TRP:HE3	1:C:143:HIS:HD2	1.59	0.49
1:C:177:LEU:C	1:C:179:THR:H	2.15	0.49
1:D:76:LEU:HD12	1:D:77:ASN:H	1.76	0.49
1:E:209:ILE:O	1:E:212:LEU:N	2.45	0.49
1:E:247:GLY:O	1:E:248:LEU:HB2	2.12	0.49
1:F:171:ASN:O	1:F:173:LEU:N	2.45	0.49
1:F:185:ILE:HD13	1:F:185:ILE:N	2.27	0.49
1:F:238:TYR:O	1:F:239:ALA:C	2.51	0.49
1:D:223:ILE:HG23	1:D:254:ASN:ND2	2.27	0.49
1:D:238:TYR:O	1:D:239:ALA:C	2.51	0.49
1:D:382:ILE:CG2	1:D:385:GLY:H	2.25	0.49
1:E:223:ILE:HG23	1:E:254:ASN:ND2	2.27	0.49
1:F:177:LEU:C	1:F:179:THR:H	2.15	0.49
1:F:308:ALA:HA	1:F:311:ASN:HB2	1.93	0.49
1:B:42:ASN:ND2	1:B:44:ASP:HB2	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:145:ALA:O	1:B:149:GLY:N	2.45	0.49
1:B:205:TRP:HA	1:B:208:VAL:HG21	1.93	0.49
1:C:282:ARG:HH21	1:D:7:GLN:C	2.15	0.49
1:D:140:TRP:HE3	1:D:143:HIS:HD2	1.59	0.49
1:E:140:TRP:HE3	1:E:143:HIS:HD2	1.59	0.49
1:F:93:PRO:O	1:F:97:GLN:HB2	2.13	0.49
1:A:171:ASN:O	1:A:173:LEU:N	2.45	0.49
1:A:185:ILE:HD13	1:A:185:ILE:H	1.77	0.49
1:A:185:ILE:CD1	1:A:185:ILE:H	2.24	0.49
1:A:200:LEU:HB2	1:A:204:GLN:CD	2.33	0.49
1:B:382:ILE:CG2	1:B:385:GLY:H	2.25	0.49
1:C:372:ARG:HD3	1:C:407:VAL:HG13	1.95	0.49
1:D:93:PRO:O	1:D:97:GLN:HB2	2.13	0.49
1:D:145:ALA:O	1:D:149:GLY:N	2.45	0.49
1:E:142:ASN:O	1:E:143:HIS:C	2.51	0.49
1:E:200:LEU:HB2	1:E:204:GLN:CD	2.33	0.49
1:B:279:ALA:O	1:B:281:GLY:N	2.46	0.49
1:C:142:ASN:O	1:C:143:HIS:C	2.51	0.49
1:C:145:ALA:O	1:C:149:GLY:N	2.46	0.49
1:C:171:ASN:O	1:C:173:LEU:N	2.45	0.49
1:C:228:PHE:HD1	1:C:327:ARG:HB2	1.78	0.49
1:C:279:ALA:O	1:C:281:GLY:N	2.46	0.49
1:D:228:PHE:HD1	1:D:327:ARG:HB2	1.78	0.49
1:F:145:ALA:O	1:F:149:GLY:N	2.46	0.49
1:F:223:ILE:HG23	1:F:254:ASN:ND2	2.28	0.49
1:A:228:PHE:HD1	1:A:327:ARG:HB2	1.78	0.48
1:B:177:LEU:C	1:B:179:THR:H	2.15	0.48
1:D:185:ILE:HD13	1:D:185:ILE:N	2.27	0.48
1:D:242:ALA:HA	1:D:246:ALA:HB3	1.95	0.48
1:D:279:ALA:O	1:D:281:GLY:N	2.46	0.48
1:E:93:PRO:O	1:E:97:GLN:HB2	2.13	0.48
1:E:279:ALA:O	1:E:281:GLY:N	2.46	0.48
1:A:242:ALA:HA	1:A:246:ALA:HB3	1.95	0.48
1:B:76:LEU:HD12	1:B:77:ASN:H	1.77	0.48
1:B:228:PHE:HD1	1:B:327:ARG:HB2	1.78	0.48
1:C:382:ILE:CD1	1:C:386:ARG:HD3	2.36	0.48
1:D:200:LEU:HB2	1:D:204:GLN:CD	2.33	0.48
1:D:265:GLU:HG3	1:D:302:GLY:CA	2.40	0.48
1:A:69:LEU:CD2	1:B:47:ILE:HG13	2.43	0.48
1:A:93:PRO:O	1:A:97:GLN:HB2	2.13	0.48
1:A:142:ASN:O	1:A:143:HIS:C	2.51	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:209:ILE:O	1:A:212:LEU:N	2.45	0.48
1:C:92:HIS:CG	1:C:93:PRO:HD2	2.49	0.48
1:C:200:LEU:HB2	1:C:204:GLN:CD	2.33	0.48
1:C:396:ASN:H	1:C:396:ASN:ND2	2.12	0.48
1:E:86:LEU:HB2	1:E:87:LEU:HD23	1.94	0.48
1:E:100:VAL:HG23	1:E:100:VAL:O	2.14	0.48
1:E:404:PHE:C	1:E:406:ALA:N	2.64	0.48
1:F:42:ASN:ND2	1:F:44:ASP:HB2	2.28	0.48
1:F:142:ASN:O	1:F:143:HIS:C	2.51	0.48
1:F:146:ILE:H	1:F:146:ILE:HG13	1.34	0.48
1:F:261:SER:O	1:F:262:LEU:HD23	2.13	0.48
1:A:223:ILE:HG23	1:A:254:ASN:ND2	2.27	0.48
1:B:142:ASN:O	1:B:143:HIS:C	2.51	0.48
1:B:200:LEU:HB2	1:B:204:GLN:CD	2.33	0.48
1:B:396:ASN:ND2	1:B:396:ASN:H	2.12	0.48
1:C:282:ARG:NH2	1:D:7:GLN:O	2.45	0.48
1:D:92:HIS:CG	1:D:93:PRO:HD2	2.49	0.48
1:D:142:ASN:O	1:D:143:HIS:C	2.51	0.48
1:D:247:GLY:O	1:D:248:LEU:HB2	2.12	0.48
1:D:393:ASN:HB3	1:D:396:ASN:HD21	1.79	0.48
1:E:261:SER:O	1:E:262:LEU:HD23	2.13	0.48
1:F:118:PHE:O	1:F:121:ARG:HB2	2.14	0.48
1:F:184:SER:N	1:F:217:LEU:HD23	2.20	0.48
1:A:92:HIS:CG	1:A:93:PRO:HD2	2.49	0.48
1:A:279:ALA:O	1:A:281:GLY:N	2.46	0.48
1:B:100:VAL:HG23	1:B:100:VAL:O	2.13	0.48
1:C:114:VAL:O	1:C:115:GLY:C	2.52	0.48
1:C:238:TYR:O	1:C:239:ALA:C	2.51	0.48
1:C:256:PHE:HA	1:C:259:ILE:HG22	1.96	0.48
1:D:400:VAL:O	1:D:403:ALA:N	2.45	0.48
1:E:118:PHE:O	1:E:121:ARG:HB2	2.14	0.48
1:F:372:ARG:HD3	1:F:407:VAL:HG13	1.94	0.48
1:F:393:ASN:HB3	1:F:396:ASN:HD21	1.79	0.48
1:A:238:TYR:O	1:A:239:ALA:C	2.51	0.48
1:A:256:PHE:HA	1:A:259:ILE:HG22	1.96	0.48
1:A:400:VAL:HB	1:A:404:PHE:CZ	2.49	0.48
1:B:256:PHE:HA	1:B:259:ILE:HG22	1.96	0.48
1:B:372:ARG:CD	1:B:407:VAL:HG13	2.43	0.48
1:B:400:VAL:HB	1:B:404:PHE:CZ	2.49	0.48
1:C:136:SER:CB	1:C:139:THR:HB	2.43	0.48
1:C:400:VAL:HB	1:C:404:PHE:CZ	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:136:SER:CB	1:D:139:THR:HB	2.43	0.48
1:E:42:ASN:ND2	1:E:44:ASP:HB2	2.28	0.48
1:E:136:SER:CB	1:E:139:THR:HB	2.43	0.48
1:E:185:ILE:H	1:E:185:ILE:CD1	2.24	0.48
1:F:228:PHE:HD1	1:F:327:ARG:HB2	1.78	0.48
1:F:396:ASN:H	1:F:396:ASN:ND2	2.12	0.48
1:A:118:PHE:O	1:A:121:ARG:HB2	2.14	0.48
1:A:136:SER:CB	1:A:139:THR:HB	2.43	0.48
1:A:372:ARG:HD3	1:A:407:VAL:HG13	1.94	0.48
1:B:133:VAL:HG12	1:B:134:TRP:N	2.29	0.48
1:B:261:SER:O	1:B:262:LEU:HD23	2.13	0.48
1:C:185:ILE:H	1:C:185:ILE:CD1	2.24	0.48
1:C:372:ARG:CD	1:C:407:VAL:HG13	2.43	0.48
1:D:256:PHE:HA	1:D:259:ILE:HG22	1.96	0.48
1:E:223:ILE:HG23	1:E:254:ASN:HD22	1.79	0.48
1:F:136:SER:CB	1:F:139:THR:HB	2.43	0.48
1:A:100:VAL:HG23	1:A:100:VAL:O	2.13	0.48
1:C:58:ALA:O	1:C:62:ALA:CB	2.62	0.48
1:D:400:VAL:HB	1:D:404:PHE:CZ	2.49	0.48
1:F:200:LEU:HB2	1:F:204:GLN:CD	2.34	0.48
1:F:279:ALA:O	1:F:281:GLY:N	2.46	0.48
1:A:382:ILE:CG2	1:A:385:GLY:H	2.25	0.48
1:B:92:HIS:CG	1:B:93:PRO:HD2	2.49	0.48
1:C:118:PHE:O	1:C:121:ARG:HB2	2.14	0.48
1:D:100:VAL:O	1:D:100:VAL:HG23	2.13	0.48
1:E:400:VAL:HB	1:E:404:PHE:CZ	2.49	0.48
1:F:100:VAL:HG23	1:F:100:VAL:O	2.13	0.48
1:F:404:PHE:C	1:F:406:ALA:N	2.64	0.48
1:B:136:SER:CB	1:B:139:THR:HB	2.43	0.48
1:D:396:ASN:ND2	1:D:396:ASN:H	2.12	0.48
1:E:92:HIS:CG	1:E:93:PRO:HD2	2.49	0.48
1:E:238:TYR:O	1:E:239:ALA:C	2.51	0.48
1:E:242:ALA:HA	1:E:246:ALA:HB3	1.95	0.48
1:E:372:ARG:CD	1:E:407:VAL:HG13	2.43	0.48
1:B:223:ILE:HG23	1:B:254:ASN:HD22	1.79	0.47
1:B:393:ASN:HB3	1:B:396:ASN:HD21	1.79	0.47
1:C:393:ASN:HB3	1:C:396:ASN:HD21	1.79	0.47
1:D:345:MET:HB2	1:D:350:PHE:HZ	1.79	0.47
1:D:372:ARG:CD	1:D:407:VAL:HG13	2.43	0.47
1:E:137:ASP:H	1:E:160:TRP:HB3	1.79	0.47
1:F:372:ARG:CD	1:F:407:VAL:HG13	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:49:GLN:OE1	1:A:49:GLN:HA	2.14	0.47
1:C:133:VAL:HG12	1:C:134:TRP:N	2.29	0.47
1:C:261:SER:O	1:C:262:LEU:HD23	2.14	0.47
1:D:114:VAL:O	1:D:115:GLY:C	2.52	0.47
1:D:118:PHE:O	1:D:121:ARG:HB2	2.14	0.47
1:E:228:PHE:HD1	1:E:327:ARG:HB2	1.78	0.47
1:F:223:ILE:HG23	1:F:254:ASN:HD22	1.79	0.47
1:A:209:ILE:H	1:A:209:ILE:HG13	1.38	0.47
1:B:400:VAL:O	1:B:403:ALA:N	2.45	0.47
1:E:345:MET:HB2	1:E:350:PHE:HZ	1.79	0.47
1:E:393:ASN:HB3	1:E:396:ASN:HD21	1.79	0.47
1:F:114:VAL:O	1:F:115:GLY:C	2.52	0.47
1:F:256:PHE:HA	1:F:259:ILE:HG22	1.96	0.47
1:A:94:VAL:HG12	1:A:99:ARG:HG3	1.97	0.47
1:A:249:PRO:HB2	1:B:6:PHE:CE1	2.49	0.47
1:B:118:PHE:O	1:B:121:ARG:HB2	2.14	0.47
1:B:355:ASN:O	1:B:357:ARG:N	2.48	0.47
1:C:100:VAL:HG23	1:C:100:VAL:O	2.13	0.47
1:C:146:ILE:H	1:C:146:ILE:HG13	1.34	0.47
1:A:58:ALA:O	1:A:62:ALA:CB	2.62	0.47
1:A:223:ILE:HG23	1:A:254:ASN:HD22	1.79	0.47
1:A:261:SER:O	1:A:262:LEU:HD23	2.14	0.47
1:A:372:ARG:CD	1:A:407:VAL:HG13	2.43	0.47
1:B:47:ILE:HD13	1:B:47:ILE:N	2.30	0.47
1:C:355:ASN:O	1:C:357:ARG:N	2.48	0.47
1:D:49:GLN:OE1	1:D:49:GLN:HA	2.14	0.47
1:D:223:ILE:HG23	1:D:254:ASN:HD22	1.79	0.47
1:D:261:SER:O	1:D:262:LEU:HD23	2.13	0.47
1:F:260:PHE:HB3	1:F:262:LEU:CD2	2.40	0.47
1:A:334:ARG:HH22	1:A:358:GLY:H	1.63	0.47
1:A:396:ASN:ND2	1:A:396:ASN:H	2.12	0.47
1:B:135:VAL:HG23	1:B:156:SER:O	2.15	0.47
1:C:223:ILE:HG23	1:C:254:ASN:HD22	1.79	0.47
1:D:355:ASN:O	1:D:357:ARG:N	2.48	0.47
1:E:49:GLN:HA	1:E:49:GLN:OE1	2.14	0.47
1:E:256:PHE:HA	1:E:259:ILE:HG22	1.96	0.47
1:E:260:PHE:HB3	1:E:262:LEU:CD2	2.40	0.47
1:F:47:ILE:HD13	1:F:47:ILE:N	2.30	0.47
1:F:135:VAL:HG23	1:F:156:SER:O	2.15	0.47
1:F:265:GLU:C	1:F:266:ARG:HG2	2.35	0.47
1:F:400:VAL:HB	1:F:404:PHE:CZ	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:7:GLN:C	1:A:9:VAL:H	2.18	0.47
1:A:40:TYR:HB2	1:A:359:MET:HE1	1.97	0.47
1:A:345:MET:HB2	1:A:350:PHE:HZ	1.79	0.47
1:B:49:GLN:HA	1:B:49:GLN:OE1	2.14	0.47
1:C:94:VAL:HG12	1:C:99:ARG:HG3	1.97	0.47
1:C:135:VAL:HG23	1:C:156:SER:O	2.15	0.47
1:D:94:VAL:HG12	1:D:99:ARG:HG3	1.97	0.47
1:E:7:GLN:C	1:E:9:VAL:H	2.18	0.47
1:E:17:ILE:HG12	1:E:141:GLU:OE2	2.15	0.47
1:E:114:VAL:O	1:E:115:GLY:C	2.52	0.47
1:E:334:ARG:HH22	1:E:358:GLY:H	1.63	0.47
1:E:401:ALA:HA	1:E:404:PHE:HE2	1.80	0.47
1:F:17:ILE:HG12	1:F:141:GLU:OE2	2.15	0.47
1:F:92:HIS:CG	1:F:93:PRO:HD2	2.49	0.47
1:F:137:ASP:H	1:F:160:TRP:HB3	1.79	0.47
1:F:209:ILE:H	1:F:209:ILE:HG13	1.38	0.47
1:A:393:ASN:HB3	1:A:396:ASN:HD21	1.79	0.47
1:B:144:VAL:O	1:B:145:ALA:C	2.53	0.47
1:D:401:ALA:HA	1:D:404:PHE:HE2	1.80	0.47
1:E:47:ILE:HD13	1:E:47:ILE:N	2.30	0.47
1:F:94:VAL:HG12	1:F:99:ARG:HG3	1.97	0.47
1:A:47:ILE:HD13	1:A:47:ILE:N	2.30	0.47
1:D:17:ILE:HG12	1:D:141:GLU:OE2	2.15	0.47
1:D:37:ILE:HG21	1:D:41:TYR:CE2	2.50	0.47
1:D:55:GLU:O	1:D:59:ARG:HD3	2.15	0.47
1:D:133:VAL:HG12	1:D:134:TRP:N	2.29	0.47
1:E:55:GLU:O	1:E:59:ARG:HD3	2.15	0.47
1:E:144:VAL:O	1:E:145:ALA:C	2.53	0.47
1:E:355:ASN:O	1:E:357:ARG:N	2.48	0.47
1:A:114:VAL:O	1:A:115:GLY:C	2.52	0.47
1:A:355:ASN:O	1:A:357:ARG:N	2.48	0.47
1:B:40:TYR:CG	1:B:41:TYR:N	2.83	0.47
1:B:209:ILE:H	1:B:209:ILE:HG13	1.37	0.47
1:B:334:ARG:HH22	1:B:358:GLY:H	1.63	0.47
1:D:47:ILE:HD13	1:D:47:ILE:N	2.30	0.47
1:D:265:GLU:C	1:D:266:ARG:HG2	2.35	0.47
1:F:355:ASN:O	1:F:357:ARG:N	2.48	0.47
1:F:401:ALA:HA	1:F:404:PHE:HE2	1.80	0.47
1:B:17:ILE:HG12	1:B:141:GLU:OE2	2.15	0.46
1:B:94:VAL:HG12	1:B:99:ARG:HG3	1.97	0.46
1:B:137:ASP:H	1:B:160:TRP:HB3	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:401:ALA:HA	1:B:404:PHE:HE2	1.80	0.46
1:C:17:ILE:HG12	1:C:141:GLU:OE2	2.15	0.46
1:C:47:ILE:HD13	1:C:47:ILE:N	2.30	0.46
1:C:265:GLU:C	1:C:266:ARG:HG2	2.35	0.46
1:D:105:THR:HG21	1:D:110:GLY:C	2.36	0.46
1:D:310:LEU:H	1:D:310:LEU:HG	1.52	0.46
1:D:334:ARG:HH22	1:D:358:GLY:H	1.63	0.46
1:E:94:VAL:HG12	1:E:99:ARG:HG3	1.97	0.46
1:F:49:GLN:OE1	1:F:49:GLN:HA	2.14	0.46
1:F:133:VAL:HG12	1:F:134:TRP:N	2.29	0.46
1:F:144:VAL:O	1:F:145:ALA:C	2.53	0.46
1:A:37:ILE:HG21	1:A:41:TYR:CE2	2.50	0.46
1:B:40:TYR:HB2	1:B:359:MET:HE1	1.97	0.46
1:C:49:GLN:OE1	1:C:49:GLN:HA	2.14	0.46
1:C:144:VAL:O	1:C:145:ALA:C	2.54	0.46
1:D:89:GLY:N	1:D:241:ARG:NH2	2.55	0.46
1:E:133:VAL:HG12	1:E:134:TRP:N	2.29	0.46
1:F:272:VAL:CG1	1:F:273:MET:H	2.26	0.46
1:A:105:THR:HG21	1:A:110:GLY:C	2.36	0.46
1:B:7:GLN:C	1:B:9:VAL:H	2.18	0.46
1:B:170:PHE:O	1:B:173:LEU:HD23	2.15	0.46
1:B:265:GLU:C	1:B:266:ARG:HG2	2.35	0.46
1:B:337:LEU:O	1:B:341:LEU:HD12	2.16	0.46
1:C:169:ARG:HG2	1:C:172:ASP:CB	2.45	0.46
1:C:334:ARG:HH22	1:C:358:GLY:H	1.63	0.46
1:D:337:LEU:O	1:D:341:LEU:HD12	2.16	0.46
1:E:40:TYR:CG	1:E:41:TYR:N	2.83	0.46
1:E:170:PHE:O	1:E:173:LEU:HD23	2.15	0.46
1:E:396:ASN:ND2	1:E:396:ASN:H	2.12	0.46
1:F:170:PHE:O	1:F:173:LEU:HD23	2.15	0.46
1:C:55:GLU:O	1:C:59:ARG:HD3	2.15	0.46
1:C:259:ILE:HG12	1:C:259:ILE:O	2.16	0.46
1:D:137:ASP:H	1:D:160:TRP:HB3	1.79	0.46
1:F:345:MET:HB2	1:F:350:PHE:HZ	1.79	0.46
1:A:133:VAL:HG12	1:A:134:TRP:N	2.29	0.46
1:A:135:VAL:HG23	1:A:156:SER:O	2.15	0.46
1:A:235:GLU:OE1	1:A:235:GLU:HA	2.16	0.46
1:B:55:GLU:O	1:B:59:ARG:HD3	2.15	0.46
1:B:310:LEU:H	1:B:310:LEU:HG	1.53	0.46
1:C:325:GLU:CA	1:C:328:THR:HB	2.45	0.46
1:C:337:LEU:O	1:C:341:LEU:HD12	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:209:ILE:O	1:D:212:LEU:N	2.45	0.46
1:F:334:ARG:HH22	1:F:358:GLY:H	1.63	0.46
1:A:144:VAL:O	1:A:145:ALA:C	2.54	0.46
1:A:259:ILE:O	1:A:259:ILE:HG12	2.16	0.46
1:B:259:ILE:O	1:B:259:ILE:HG12	2.16	0.46
1:C:40:TYR:CG	1:C:41:TYR:N	2.83	0.46
1:D:7:GLN:C	1:D:9:VAL:H	2.18	0.46
1:D:40:TYR:CG	1:D:41:TYR:N	2.83	0.46
1:D:135:VAL:HG23	1:D:156:SER:O	2.15	0.46
1:E:105:THR:HG21	1:E:110:GLY:C	2.36	0.46
1:E:265:GLU:C	1:E:266:ARG:HG2	2.35	0.46
1:F:37:ILE:HG21	1:F:41:TYR:CE2	2.50	0.46
1:F:55:GLU:O	1:F:59:ARG:HD3	2.15	0.46
1:F:104:GLN:OE1	1:F:303:ALA:HB2	2.16	0.46
1:F:233:MET:C	1:F:235:GLU:H	2.19	0.46
1:F:238:TYR:C	1:F:238:TYR:CD1	2.89	0.46
1:A:40:TYR:CG	1:A:41:TYR:N	2.83	0.46
1:A:55:GLU:O	1:A:59:ARG:HD3	2.15	0.46
1:A:337:LEU:O	1:A:341:LEU:HD12	2.16	0.46
1:B:105:THR:HG21	1:B:110:GLY:C	2.36	0.46
1:B:105:THR:HG21	1:B:110:GLY:O	2.16	0.46
1:B:169:ARG:HG2	1:B:172:ASP:CB	2.45	0.46
1:B:235:GLU:OE1	1:B:235:GLU:HA	2.16	0.46
1:B:345:MET:HB2	1:B:350:PHE:HZ	1.80	0.46
1:C:7:GLN:C	1:C:9:VAL:H	2.18	0.46
1:C:209:ILE:O	1:C:212:LEU:N	2.45	0.46
1:D:169:ARG:HG2	1:D:172:ASP:CB	2.45	0.46
1:D:259:ILE:O	1:D:259:ILE:HG12	2.16	0.46
1:E:89:GLY:N	1:E:241:ARG:NH2	2.55	0.46
1:F:72:PRO:HG2	1:F:75:GLY:H	1.81	0.46
1:F:147:PHE:C	1:F:149:GLY:N	2.69	0.46
1:A:108:GLY:O	1:A:111:ALA:HB3	2.16	0.46
1:A:169:ARG:HG2	1:A:172:ASP:CB	2.45	0.46
1:A:223:ILE:HG23	1:A:223:ILE:O	2.16	0.46
1:C:89:GLY:N	1:C:241:ARG:NH2	2.55	0.46
1:C:105:THR:HG21	1:C:110:GLY:C	2.36	0.46
1:C:137:ASP:H	1:C:160:TRP:HB3	1.79	0.46
1:C:238:TYR:C	1:C:238:TYR:CD1	2.89	0.46
1:E:76:LEU:CD2	1:E:79:TYR:HB2	2.46	0.46
1:E:259:ILE:O	1:E:259:ILE:HG12	2.16	0.46
1:F:7:GLN:C	1:F:9:VAL:H	2.18	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:40:TYR:CG	1:F:41:TYR:N	2.83	0.46
1:F:235:GLU:HA	1:F:235:GLU:OE1	2.16	0.46
1:F:337:LEU:O	1:F:341:LEU:HD12	2.16	0.46
1:F:400:VAL:O	1:F:403:ALA:N	2.45	0.46
1:A:72:PRO:HG2	1:A:75:GLY:H	1.81	0.46
1:A:105:THR:HG21	1:A:110:GLY:O	2.16	0.46
1:A:137:ASP:H	1:A:160:TRP:HB3	1.79	0.46
1:A:233:MET:C	1:A:235:GLU:H	2.19	0.46
1:A:242:ALA:O	1:A:246:ALA:HB3	2.16	0.46
1:A:245:SER:C	1:A:247:GLY:N	2.69	0.46
1:A:401:ALA:HA	1:A:404:PHE:HE2	1.80	0.46
1:B:104:GLN:OE1	1:B:303:ALA:HB2	2.16	0.46
1:B:223:ILE:HG23	1:B:223:ILE:O	2.16	0.46
1:B:238:TYR:C	1:B:238:TYR:CD1	2.89	0.46
1:B:272:VAL:CG1	1:B:273:MET:H	2.26	0.46
1:C:108:GLY:O	1:C:111:ALA:HB3	2.16	0.46
1:C:170:PHE:O	1:C:173:LEU:HD23	2.15	0.46
1:C:263:TYR:CD1	1:C:263:TYR:N	2.70	0.46
1:D:170:PHE:O	1:D:173:LEU:HD23	2.15	0.46
1:E:135:VAL:HG23	1:E:156:SER:O	2.15	0.46
1:F:105:THR:HG21	1:F:110:GLY:O	2.16	0.46
1:F:223:ILE:HG23	1:F:223:ILE:O	2.16	0.46
1:A:325:GLU:CA	1:A:328:THR:HB	2.45	0.46
1:B:108:GLY:O	1:B:111:ALA:HB3	2.16	0.46
1:D:233:MET:C	1:D:235:GLU:H	2.19	0.46
1:E:140:TRP:CZ3	1:E:142:ASN:HB2	2.51	0.46
1:E:147:PHE:C	1:E:149:GLY:N	2.69	0.46
1:A:47:ILE:HG13	1:B:69:LEU:CD2	2.45	0.45
1:A:79:TYR:CD2	1:A:83:ILE:HD11	2.52	0.45
1:A:104:GLN:OE1	1:A:303:ALA:HB2	2.16	0.45
1:A:170:PHE:O	1:A:173:LEU:HD23	2.15	0.45
1:A:265:GLU:C	1:A:266:ARG:HG2	2.35	0.45
1:B:233:MET:C	1:B:235:GLU:H	2.19	0.45
1:C:401:ALA:HA	1:C:404:PHE:HE2	1.80	0.45
1:D:79:TYR:CD2	1:D:83:ILE:HD11	2.52	0.45
1:D:144:VAL:O	1:D:145:ALA:C	2.53	0.45
1:D:235:GLU:OE1	1:D:235:GLU:HA	2.16	0.45
1:E:298:PRO:HB3	1:E:299:PRO:HD2	1.98	0.45
1:F:108:GLY:O	1:F:111:ALA:HB3	2.16	0.45
1:F:140:TRP:CZ3	1:F:142:ASN:HB2	2.51	0.45
1:F:252:VAL:HG13	1:F:253:SER:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:17:ILE:HG12	1:A:141:GLU:OE2	2.15	0.45
1:B:37:ILE:HG21	1:B:41:TYR:CE2	2.50	0.45
1:B:209:ILE:O	1:B:212:LEU:N	2.45	0.45
1:C:76:LEU:CD2	1:C:79:TYR:HB2	2.46	0.45
1:C:79:TYR:CD2	1:C:83:ILE:HD11	2.51	0.45
1:C:104:GLN:OE1	1:C:303:ALA:HB2	2.16	0.45
1:E:72:PRO:HG2	1:E:75:GLY:H	1.81	0.45
1:E:173:LEU:O	1:E:176:THR:N	2.49	0.45
1:E:245:SER:C	1:E:247:GLY:N	2.69	0.45
1:E:272:VAL:CG1	1:E:273:MET:H	2.26	0.45
1:E:337:LEU:O	1:E:341:LEU:HD12	2.16	0.45
1:F:58:ALA:O	1:F:62:ALA:CB	2.62	0.45
1:F:105:THR:HG21	1:F:110:GLY:C	2.36	0.45
1:A:266:ARG:HH12	2:A:500:PLP:P	2.40	0.45
1:A:298:PRO:HB3	1:A:299:PRO:HD2	1.98	0.45
1:C:235:GLU:OE1	1:C:235:GLU:HA	2.16	0.45
1:C:242:ALA:O	1:C:246:ALA:HB3	2.16	0.45
1:C:278:GLU:OE1	1:C:279:ALA:N	2.50	0.45
1:C:345:MET:HB2	1:C:350:PHE:HZ	1.79	0.45
1:D:108:GLY:O	1:D:111:ALA:HB3	2.16	0.45
1:E:6:PHE:CE1	1:F:249:PRO:CB	2.98	0.45
1:E:79:TYR:CD2	1:E:83:ILE:HD11	2.52	0.45
1:E:105:THR:HG21	1:E:110:GLY:O	2.16	0.45
1:E:223:ILE:HG23	1:E:223:ILE:O	2.16	0.45
1:E:224:ALA:HB3	1:E:225:TYR:CE2	2.52	0.45
1:E:235:GLU:OE1	1:E:235:GLU:HA	2.16	0.45
1:E:242:ALA:O	1:E:246:ALA:HB3	2.16	0.45
1:E:252:VAL:HG13	1:E:253:SER:N	2.31	0.45
1:E:278:GLU:OE1	1:E:279:ALA:N	2.50	0.45
1:A:173:LEU:O	1:A:176:THR:N	2.49	0.45
1:A:286:GLN:OE1	1:B:12:TYR:HD1	1.99	0.45
1:B:72:PRO:HG2	1:B:75:GLY:H	1.81	0.45
1:B:242:ALA:O	1:B:246:ALA:HB3	2.16	0.45
1:C:105:THR:HG21	1:C:110:GLY:O	2.16	0.45
1:C:140:TRP:CZ3	1:C:142:ASN:HB2	2.51	0.45
1:C:234:GLU:H	1:C:234:GLU:HG2	1.63	0.45
1:C:266:ARG:HH12	2:C:500:PLP:P	2.40	0.45
1:C:272:VAL:CG1	1:C:273:MET:N	2.80	0.45
1:D:104:GLN:OE1	1:D:303:ALA:HB2	2.16	0.45
1:D:238:TYR:C	1:D:238:TYR:CD1	2.89	0.45
1:D:325:GLU:CA	1:D:328:THR:HB	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:29:ARG:HB2	1:E:32:LYS:HD3	1.99	0.45
1:E:108:GLY:O	1:E:111:ALA:HB3	2.16	0.45
1:E:325:GLU:CA	1:E:328:THR:HB	2.45	0.45
1:F:76:LEU:CD2	1:F:79:TYR:HB2	2.46	0.45
1:F:89:GLY:N	1:F:241:ARG:NH2	2.55	0.45
1:A:147:PHE:C	1:A:149:GLY:N	2.69	0.45
1:A:194:ASN:ND2	1:A:360:PHE:CE2	2.85	0.45
1:C:72:PRO:HG2	1:C:75:GLY:H	1.81	0.45
1:C:173:LEU:O	1:C:176:THR:N	2.49	0.45
1:D:72:PRO:HG2	1:D:75:GLY:H	1.81	0.45
1:D:278:GLU:OE1	1:D:279:ALA:N	2.50	0.45
1:D:287:LEU:C	1:D:289:ALA:N	2.70	0.45
1:E:104:GLN:OE1	1:E:303:ALA:HB2	2.16	0.45
1:E:169:ARG:HG2	1:E:172:ASP:CB	2.45	0.45
1:E:338:VAL:HG21	1:E:354:LEU:CG	2.45	0.45
1:F:79:TYR:CD2	1:F:83:ILE:HD11	2.52	0.45
1:A:71:LEU:HB2	1:A:297:SER:HB2	1.99	0.45
1:A:140:TRP:CZ3	1:A:142:ASN:HB2	2.51	0.45
1:A:238:TYR:C	1:A:238:TYR:CD1	2.89	0.45
1:A:249:PRO:CB	1:B:6:PHE:CE1	3.00	0.45
1:B:79:TYR:CD2	1:B:83:ILE:HD11	2.52	0.45
1:B:301:PHE:O	1:B:303:ALA:N	2.50	0.45
1:B:325:GLU:CA	1:B:328:THR:HB	2.45	0.45
1:B:396:ASN:O	1:B:398:GLN:N	2.50	0.45
1:D:76:LEU:CD2	1:D:79:TYR:HB2	2.46	0.45
1:D:140:TRP:CZ3	1:D:142:ASN:HB2	2.51	0.45
1:D:298:PRO:HB3	1:D:299:PRO:HD2	1.98	0.45
1:E:65:HIS:HB3	1:E:66:GLY:H	1.58	0.45
1:E:238:TYR:C	1:E:238:TYR:CD1	2.89	0.45
1:E:266:ARG:HH12	2:E:500:PLP:P	2.40	0.45
1:F:242:ALA:O	1:F:246:ALA:HB3	2.16	0.45
1:A:224:ALA:HB3	1:A:225:TYR:CE2	2.52	0.45
1:A:278:GLU:OE1	1:A:279:ALA:N	2.50	0.45
1:A:382:ILE:CD1	1:A:386:ARG:HD3	2.36	0.45
1:B:76:LEU:CD2	1:B:79:TYR:HB2	2.46	0.45
1:C:37:ILE:HG21	1:C:41:TYR:CE2	2.50	0.45
1:C:223:ILE:HG23	1:C:223:ILE:O	2.16	0.45
1:C:301:PHE:O	1:C:303:ALA:N	2.50	0.45
1:D:43:GLU:C	1:D:45:GLY:N	2.70	0.45
1:D:252:VAL:HG13	1:D:253:SER:N	2.31	0.45
1:D:266:ARG:HH12	2:D:500:PLP:P	2.40	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:71:LEU:HB2	1:E:297:SER:HB2	1.99	0.45
1:E:393:ASN:C	1:E:395:ALA:H	2.20	0.45
1:F:278:GLU:OE1	1:F:279:ALA:N	2.50	0.45
1:A:29:ARG:HB2	1:A:32:LYS:HD3	1.99	0.45
1:A:287:LEU:C	1:A:289:ALA:N	2.70	0.45
1:A:396:ASN:O	1:A:398:GLN:N	2.50	0.45
1:B:43:GLU:C	1:B:45:GLY:N	2.70	0.45
1:B:47:ILE:HD13	1:B:47:ILE:H	1.82	0.45
1:B:114:VAL:O	1:B:115:GLY:C	2.52	0.45
1:B:173:LEU:O	1:B:176:THR:N	2.49	0.45
1:B:382:ILE:CD1	1:B:386:ARG:HD3	2.36	0.45
1:C:74:GLU:HB2	1:C:288:LYS:CE	2.37	0.45
1:C:224:ALA:HB3	1:C:225:TYR:CE2	2.52	0.45
1:D:173:LEU:O	1:D:176:THR:N	2.49	0.45
1:F:259:ILE:O	1:F:259:ILE:HG12	2.16	0.45
1:A:249:PRO:CB	1:B:6:PHE:HE1	2.30	0.45
1:A:400:VAL:HG12	1:A:404:PHE:CE1	2.52	0.45
1:B:140:TRP:CZ3	1:B:142:ASN:HB2	2.51	0.45
1:B:194:ASN:ND2	1:B:360:PHE:CE2	2.85	0.45
1:C:252:VAL:HG13	1:C:253:SER:N	2.31	0.45
1:D:382:ILE:CD1	1:D:386:ARG:HD3	2.36	0.45
1:D:404:PHE:C	1:D:406:ALA:H	2.21	0.45
1:E:71:LEU:CD2	1:E:72:PRO:HD2	2.47	0.45
1:E:233:MET:C	1:E:235:GLU:H	2.19	0.45
1:E:254:ASN:ND2	1:E:255:SER:N	2.64	0.45
1:E:301:PHE:O	1:E:303:ALA:N	2.50	0.45
1:F:396:ASN:O	1:F:398:GLN:N	2.50	0.45
1:A:17:ILE:H	1:A:17:ILE:HG13	1.66	0.45
1:A:312:ASP:HB3	1:A:315:LEU:HG	1.99	0.45
1:A:393:ASN:O	1:A:395:ALA:N	2.50	0.45
1:B:225:TYR:OH	1:B:360:PHE:HE2	2.01	0.45
1:B:287:LEU:C	1:B:289:ALA:N	2.70	0.45
1:D:242:ALA:O	1:D:246:ALA:HB3	2.16	0.45
1:D:396:ASN:O	1:D:398:GLN:N	2.50	0.45
1:E:209:ILE:H	1:E:209:ILE:HG13	1.38	0.45
1:E:295:TYR:O	1:E:296:SER:CB	2.65	0.45
1:E:297:SER:HA	1:E:298:PRO:HD3	1.87	0.45
1:E:396:ASN:O	1:E:398:GLN:N	2.50	0.45
1:E:400:VAL:O	1:E:403:ALA:N	2.45	0.45
1:F:245:SER:C	1:F:247:GLY:N	2.69	0.45
1:F:266:ARG:HH12	2:F:500:PLP:P	2.40	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:76:LEU:CD2	1:A:79:TYR:HB2	2.46	0.44
1:A:338:VAL:HG21	1:A:354:LEU:CG	2.45	0.44
1:A:400:VAL:O	1:A:403:ALA:N	2.45	0.44
1:A:404:PHE:C	1:A:406:ALA:H	2.21	0.44
1:B:404:PHE:C	1:B:406:ALA:H	2.21	0.44
1:C:7:GLN:O	1:D:282:ARG:NH2	2.43	0.44
1:C:51:GLN:O	1:C:54:ALA:HB3	2.17	0.44
1:C:287:LEU:C	1:C:289:ALA:N	2.70	0.44
1:D:71:LEU:CD2	1:D:72:PRO:HD2	2.47	0.44
1:D:400:VAL:HG12	1:D:404:PHE:CE1	2.52	0.44
1:E:225:TYR:OH	1:E:360:PHE:HE2	2.00	0.44
1:E:329:ARG:NH2	1:E:333:MET:HE3	2.31	0.44
1:E:393:ASN:O	1:E:395:ALA:N	2.50	0.44
1:F:338:VAL:HG21	1:F:354:LEU:CG	2.45	0.44
1:F:400:VAL:HG12	1:F:404:PHE:CE1	2.52	0.44
1:A:51:GLN:O	1:A:54:ALA:HB3	2.17	0.44
1:A:260:PHE:HB3	1:A:262:LEU:CD2	2.40	0.44
1:A:301:PHE:O	1:A:303:ALA:N	2.50	0.44
1:B:17:ILE:H	1:B:17:ILE:HG13	1.66	0.44
1:B:71:LEU:CD2	1:B:72:PRO:HD2	2.47	0.44
1:B:224:ALA:HB3	1:B:225:TYR:CE2	2.52	0.44
1:B:266:ARG:HH12	2:B:500:PLP:P	2.40	0.44
1:C:47:ILE:HD13	1:C:47:ILE:H	1.82	0.44
1:C:400:VAL:HG12	1:C:404:PHE:CE1	2.52	0.44
1:D:51:GLN:O	1:D:54:ALA:HB3	2.17	0.44
1:D:65:HIS:HB3	1:D:66:GLY:H	1.58	0.44
1:D:71:LEU:HB2	1:D:297:SER:HB2	1.99	0.44
1:D:105:THR:HG21	1:D:110:GLY:O	2.16	0.44
1:D:223:ILE:HG23	1:D:223:ILE:O	2.16	0.44
1:E:47:ILE:HD13	1:E:47:ILE:H	1.82	0.44
1:F:29:ARG:HB2	1:F:32:LYS:HD3	1.99	0.44
1:F:224:ALA:HB3	1:F:225:TYR:CE2	2.52	0.44
1:F:287:LEU:C	1:F:289:ALA:N	2.70	0.44
1:F:312:ASP:HB3	1:F:315:LEU:HG	1.99	0.44
1:F:393:ASN:C	1:F:395:ALA:H	2.20	0.44
1:A:272:VAL:CG1	1:A:273:MET:N	2.80	0.44
1:B:147:PHE:C	1:B:149:GLY:N	2.69	0.44
1:B:252:VAL:HG13	1:B:253:SER:N	2.31	0.44
1:B:338:VAL:HG21	1:B:354:LEU:CG	2.45	0.44
1:B:393:ASN:O	1:B:395:ALA:N	2.50	0.44
1:C:245:SER:C	1:C:247:GLY:N	2.69	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:312:ASP:HB3	1:C:315:LEU:HG	2.00	0.44
1:E:51:GLN:O	1:E:54:ALA:HB3	2.17	0.44
1:E:116:ALA:C	1:E:118:PHE:N	2.71	0.44
1:F:40:TYR:HB2	1:F:359:MET:HE1	1.99	0.44
1:F:43:GLU:C	1:F:45:GLY:N	2.70	0.44
1:F:404:PHE:C	1:F:406:ALA:H	2.21	0.44
1:A:43:GLU:C	1:A:45:GLY:N	2.70	0.44
1:A:192:CYS:N	1:A:199:ASP:OD1	2.51	0.44
1:A:295:TYR:O	1:A:296:SER:CB	2.65	0.44
1:A:393:ASN:C	1:A:395:ALA:H	2.20	0.44
1:B:51:GLN:O	1:B:54:ALA:HB3	2.17	0.44
1:B:278:GLU:OE1	1:B:279:ALA:N	2.50	0.44
1:C:147:PHE:C	1:C:149:GLY:N	2.69	0.44
1:C:404:PHE:C	1:C:406:ALA:H	2.21	0.44
1:D:194:ASN:ND2	1:D:360:PHE:CE2	2.85	0.44
1:D:224:ALA:HB3	1:D:225:TYR:CE2	2.52	0.44
1:D:393:ASN:O	1:D:395:ALA:N	2.50	0.44
1:E:37:ILE:HG21	1:E:41:TYR:CE2	2.50	0.44
1:E:400:VAL:HG12	1:E:404:PHE:CE1	2.52	0.44
1:F:194:ASN:ND2	1:F:360:PHE:CE2	2.85	0.44
1:F:325:GLU:CA	1:F:328:THR:HB	2.45	0.44
1:B:29:ARG:HB2	1:B:32:LYS:HD3	1.99	0.44
1:B:89:GLY:N	1:B:241:ARG:NH2	2.55	0.44
1:B:295:TYR:O	1:B:296:SER:CB	2.65	0.44
1:C:40:TYR:HB2	1:C:359:MET:HE1	2.00	0.44
1:C:233:MET:C	1:C:235:GLU:H	2.19	0.44
1:C:393:ASN:O	1:C:395:ALA:N	2.50	0.44
1:D:29:ARG:HB2	1:D:32:LYS:HD3	1.99	0.44
1:D:38:GLY:C	1:D:39:LEU:HD23	2.38	0.44
1:D:245:SER:C	1:D:247:GLY:N	2.69	0.44
1:D:251:LEU:HD13	1:D:272:VAL:HG22	2.00	0.44
1:D:301:PHE:O	1:D:303:ALA:N	2.50	0.44
1:D:312:ASP:HB3	1:D:315:LEU:HG	1.99	0.44
1:F:297:SER:HA	1:F:298:PRO:HD3	1.87	0.44
1:A:252:VAL:HG13	1:A:253:SER:N	2.31	0.44
1:A:347:GLU:HB3	1:E:402:LYS:CE	2.47	0.44
1:B:251:LEU:HD13	1:B:272:VAL:HG22	2.00	0.44
1:B:312:ASP:HB3	1:B:315:LEU:HG	1.99	0.44
1:B:400:VAL:HG12	1:B:404:PHE:CE1	2.52	0.44
1:C:194:ASN:ND2	1:C:360:PHE:CE2	2.85	0.44
1:D:47:ILE:HD13	1:D:47:ILE:H	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:192:CYS:N	1:D:199:ASP:OD1	2.51	0.44
1:E:194:ASN:ND2	1:E:360:PHE:CE2	2.85	0.44
1:F:173:LEU:O	1:F:176:THR:N	2.49	0.44
1:F:377:PHE:CD1	1:F:377:PHE:N	2.86	0.44
1:A:38:GLY:C	1:A:39:LEU:HD23	2.38	0.44
1:A:228:PHE:HA	1:A:327:ARG:HB2	2.00	0.44
1:B:71:LEU:HB2	1:B:297:SER:HB2	1.99	0.44
1:B:116:ALA:C	1:B:118:PHE:N	2.71	0.44
1:B:393:ASN:C	1:B:395:ALA:H	2.20	0.44
1:D:272:VAL:CG1	1:D:273:MET:H	2.26	0.44
1:D:377:PHE:CD1	1:D:377:PHE:N	2.86	0.44
1:E:11:ALA:HB2	1:F:282:ARG:HB3	1.99	0.44
1:E:43:GLU:O	1:E:45:GLY:N	2.51	0.44
1:E:82:ALA:C	1:E:85:PRO:HG2	2.38	0.44
1:E:228:PHE:HA	1:E:327:ARG:HB2	2.00	0.44
1:E:393:ASN:C	1:E:395:ALA:N	2.71	0.44
1:F:256:PHE:HA	1:F:259:ILE:CG2	2.48	0.44
1:A:82:ALA:C	1:A:85:PRO:HG2	2.38	0.44
1:A:225:TYR:OH	1:A:360:PHE:HE2	2.00	0.44
1:B:82:ALA:C	1:B:85:PRO:HG2	2.38	0.44
1:B:298:PRO:HB3	1:B:299:PRO:HD2	1.98	0.44
1:C:43:GLU:C	1:C:45:GLY:N	2.70	0.44
1:C:71:LEU:HB2	1:C:297:SER:HB2	1.99	0.44
1:C:396:ASN:O	1:C:398:GLN:N	2.50	0.44
1:D:147:PHE:C	1:D:149:GLY:N	2.69	0.44
1:E:251:LEU:HD13	1:E:272:VAL:HG22	2.00	0.44
1:E:287:LEU:C	1:E:289:ALA:N	2.70	0.44
1:F:38:GLY:C	1:F:39:LEU:HD23	2.38	0.44
1:F:71:LEU:HB2	1:F:297:SER:HB2	1.99	0.44
1:A:47:ILE:HD13	1:A:47:ILE:H	1.82	0.44
1:B:147:PHE:C	1:B:149:GLY:H	2.22	0.44
1:B:263:TYR:CD1	1:B:263:TYR:N	2.70	0.44
1:C:38:GLY:C	1:C:39:LEU:HD23	2.38	0.44
1:C:298:PRO:HB3	1:C:299:PRO:HD2	1.99	0.44
1:C:400:VAL:O	1:C:403:ALA:N	2.45	0.44
1:D:71:LEU:HD11	1:D:300:ASN:HA	2.00	0.44
1:E:58:ALA:O	1:E:62:ALA:CB	2.62	0.44
1:F:43:GLU:O	1:F:45:GLY:N	2.51	0.44
1:F:47:ILE:HD13	1:F:47:ILE:H	1.82	0.44
1:F:74:GLU:HB2	1:F:288:LYS:CE	2.37	0.44
1:F:116:ALA:C	1:F:118:PHE:N	2.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:192:CYS:N	1:F:199:ASP:OD1	2.51	0.44
1:F:251:LEU:HD13	1:F:272:VAL:HG22	2.00	0.44
1:F:393:ASN:O	1:F:395:ALA:N	2.50	0.44
1:A:89:GLY:N	1:A:241:ARG:NH2	2.55	0.43
1:A:116:ALA:C	1:A:118:PHE:N	2.71	0.43
1:B:245:SER:C	1:B:247:GLY:N	2.69	0.43
1:C:29:ARG:HB2	1:C:32:LYS:HD3	1.99	0.43
1:C:71:LEU:HD11	1:C:300:ASN:HA	2.00	0.43
1:C:84:ALA:N	1:C:85:PRO:CD	2.81	0.43
1:C:116:ALA:C	1:C:118:PHE:N	2.71	0.43
1:D:82:ALA:C	1:D:85:PRO:HG2	2.38	0.43
1:F:51:GLN:O	1:F:54:ALA:HB3	2.17	0.43
1:F:88:PHE:CE1	1:F:244:ALA:HB2	2.53	0.43
1:F:301:PHE:O	1:F:303:ALA:N	2.50	0.43
1:A:84:ALA:N	1:A:85:PRO:CD	2.81	0.43
1:A:393:ASN:C	1:A:395:ALA:N	2.71	0.43
1:B:38:GLY:C	1:B:39:LEU:HD23	2.38	0.43
1:B:71:LEU:HD11	1:B:300:ASN:HA	2.00	0.43
1:B:84:ALA:N	1:B:85:PRO:CD	2.81	0.43
1:C:256:PHE:HA	1:C:259:ILE:CG2	2.48	0.43
1:D:393:ASN:C	1:D:395:ALA:H	2.20	0.43
1:E:256:PHE:HA	1:E:259:ILE:CG2	2.48	0.43
1:F:82:ALA:C	1:F:85:PRO:HG2	2.38	0.43
1:F:193:HIS:HB3	1:F:197:GLY:CA	2.49	0.43
1:A:147:PHE:C	1:A:149:GLY:H	2.22	0.43
1:B:107:GLY:H	1:B:267:VAL:C	2.22	0.43
1:B:192:CYS:N	1:B:199:ASP:OD1	2.51	0.43
1:C:82:ALA:C	1:C:85:PRO:HG2	2.38	0.43
1:C:377:PHE:CD1	1:C:377:PHE:N	2.86	0.43
1:D:225:TYR:OH	1:D:360:PHE:HE2	2.00	0.43
1:D:256:PHE:HA	1:D:259:ILE:CG2	2.48	0.43
1:D:295:TYR:O	1:D:296:SER:CB	2.65	0.43
1:F:84:ALA:N	1:F:85:PRO:CD	2.81	0.43
1:F:87:LEU:O	1:F:241:ARG:NE	2.52	0.43
1:F:107:GLY:H	1:F:267:VAL:C	2.22	0.43
1:F:225:TYR:OH	1:F:360:PHE:HE2	2.01	0.43
1:A:71:LEU:HD11	1:A:300:ASN:HA	2.00	0.43
1:A:71:LEU:CD2	1:A:72:PRO:HD2	2.47	0.43
1:B:165:THR:C	1:B:167:GLY:N	2.72	0.43
1:B:377:PHE:CD1	1:B:377:PHE:N	2.86	0.43
1:C:147:PHE:C	1:C:149:GLY:H	2.22	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:209:ILE:H	1:C:209:ILE:HG13	1.38	0.43
1:E:38:GLY:C	1:E:39:LEU:HD23	2.38	0.43
1:E:87:LEU:O	1:E:241:ARG:NE	2.52	0.43
1:E:147:PHE:C	1:E:149:GLY:H	2.22	0.43
1:F:67:ALA:O	1:F:69:LEU:N	2.52	0.43
1:F:298:PRO:HB3	1:F:299:PRO:HD2	1.98	0.43
1:F:393:ASN:C	1:F:395:ALA:N	2.71	0.43
1:A:256:PHE:HA	1:A:259:ILE:CG2	2.48	0.43
1:A:303:ALA:O	1:A:304:GLN:C	2.57	0.43
1:A:325:GLU:HA	1:A:328:THR:CB	2.48	0.43
1:B:43:GLU:O	1:B:45:GLY:N	2.51	0.43
1:B:193:HIS:HB3	1:B:197:GLY:CA	2.49	0.43
1:C:295:TYR:O	1:C:296:SER:CB	2.65	0.43
1:C:393:ASN:C	1:C:395:ALA:N	2.71	0.43
1:D:116:ALA:C	1:D:118:PHE:N	2.71	0.43
1:D:193:HIS:HB3	1:D:197:GLY:CA	2.49	0.43
1:D:228:PHE:HA	1:D:327:ARG:HB2	2.00	0.43
1:D:334:ARG:HH22	1:D:358:GLY:N	2.17	0.43
1:E:192:CYS:N	1:E:199:ASP:OD1	2.51	0.43
1:E:377:PHE:CD1	1:E:377:PHE:N	2.86	0.43
1:F:71:LEU:HD11	1:F:300:ASN:HA	2.00	0.43
1:B:58:ALA:O	1:B:62:ALA:CB	2.62	0.43
1:B:174:LEU:O	1:B:178:LYS:HG3	2.19	0.43
1:C:43:GLU:O	1:C:45:GLY:N	2.51	0.43
1:D:17:ILE:H	1:D:17:ILE:HG13	1.66	0.43
1:D:256:PHE:O	1:D:257:SER:C	2.57	0.43
1:D:303:ALA:O	1:D:304:GLN:C	2.57	0.43
1:D:341:LEU:C	1:D:343:THR:H	2.22	0.43
1:E:107:GLY:H	1:E:267:VAL:C	2.22	0.43
1:E:165:THR:C	1:E:167:GLY:N	2.72	0.43
1:E:170:PHE:HB3	1:E:171:ASN:H	1.67	0.43
1:E:278:GLU:OE1	1:E:282:ARG:NH1	2.52	0.43
1:E:312:ASP:HB3	1:E:315:LEU:HG	2.00	0.43
1:F:118:PHE:CD1	1:F:118:PHE:C	2.92	0.43
1:A:165:THR:C	1:A:167:GLY:N	2.72	0.43
1:C:260:PHE:HB3	1:C:262:LEU:CD2	2.41	0.43
1:C:334:ARG:HH22	1:C:358:GLY:N	2.17	0.43
1:C:393:ASN:C	1:C:395:ALA:H	2.20	0.43
1:D:107:GLY:H	1:D:267:VAL:C	2.22	0.43
1:D:209:ILE:O	1:D:210:GLU:C	2.57	0.43
1:D:278:GLU:OE1	1:D:282:ARG:NH1	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:174:LEU:O	1:E:178:LYS:HG3	2.19	0.43
1:F:107:GLY:H	1:F:267:VAL:CA	2.32	0.43
1:F:295:TYR:O	1:F:296:SER:CB	2.65	0.43
1:F:334:ARG:HH22	1:F:358:GLY:N	2.17	0.43
1:A:12:TYR:HD1	1:B:286:GLN:OE1	2.02	0.43
1:A:87:LEU:O	1:A:241:ARG:NE	2.52	0.43
1:A:174:LEU:O	1:A:178:LYS:HG3	2.19	0.43
1:A:209:ILE:O	1:A:210:GLU:C	2.57	0.43
1:A:251:LEU:HD13	1:A:272:VAL:HG22	2.00	0.43
1:A:341:LEU:C	1:A:343:THR:H	2.22	0.43
1:A:377:PHE:CD1	1:A:377:PHE:N	2.86	0.43
1:B:88:PHE:CE1	1:B:244:ALA:CB	3.02	0.43
1:B:107:GLY:H	1:B:267:VAL:CA	2.32	0.43
1:B:118:PHE:CD1	1:B:118:PHE:C	2.92	0.43
1:B:256:PHE:HA	1:B:259:ILE:CG2	2.48	0.43
1:B:278:GLU:OE1	1:B:282:ARG:NH1	2.52	0.43
1:B:334:ARG:HH22	1:B:358:GLY:N	2.17	0.43
1:B:393:ASN:C	1:B:395:ALA:N	2.71	0.43
1:C:65:HIS:HB3	1:C:66:GLY:H	1.58	0.43
1:C:107:GLY:H	1:C:267:VAL:CA	2.32	0.43
1:C:192:CYS:N	1:C:199:ASP:OD1	2.51	0.43
1:C:193:HIS:HB3	1:C:197:GLY:CA	2.49	0.43
1:C:256:PHE:O	1:C:257:SER:C	2.57	0.43
1:E:71:LEU:HD11	1:E:300:ASN:HA	2.00	0.43
1:E:99:ARG:O	1:E:280:ALA:HB2	2.19	0.43
1:E:234:GLU:H	1:E:234:GLU:HG2	1.63	0.43
1:E:325:GLU:HA	1:E:328:THR:CB	2.48	0.43
1:F:88:PHE:CE1	1:F:244:ALA:CB	3.02	0.43
1:F:147:PHE:C	1:F:149:GLY:H	2.22	0.43
1:F:228:PHE:HA	1:F:327:ARG:HB2	2.00	0.43
1:A:278:GLU:OE1	1:A:282:ARG:NH1	2.52	0.43
1:B:228:PHE:HA	1:B:327:ARG:HB2	2.00	0.43
1:B:303:ALA:O	1:B:304:GLN:C	2.57	0.43
1:C:174:LEU:O	1:C:178:LYS:HG3	2.19	0.43
1:D:147:PHE:C	1:D:149:GLY:H	2.22	0.43
1:D:220:PHE:CD1	1:D:220:PHE:C	2.92	0.43
1:D:393:ASN:C	1:D:395:ALA:N	2.71	0.43
1:E:347:GLU:H	1:E:347:GLU:HG3	1.62	0.43
1:F:165:THR:C	1:F:167:GLY:N	2.72	0.43
1:F:278:GLU:OE1	1:F:282:ARG:NH1	2.52	0.43
1:A:43:GLU:O	1:A:45:GLY:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:216:GLU:C	1:B:217:LEU:HG	2.40	0.43
1:C:15:ASP:OD1	1:C:17:ILE:HD11	2.19	0.43
1:C:225:TYR:OH	1:C:360:PHE:HE2	2.00	0.43
1:C:228:PHE:HA	1:C:327:ARG:HB2	2.00	0.43
1:C:303:ALA:O	1:C:304:GLN:C	2.57	0.43
1:D:43:GLU:O	1:D:45:GLY:N	2.51	0.43
1:D:107:GLY:H	1:D:267:VAL:CA	2.32	0.43
1:D:174:LEU:O	1:D:178:LYS:HG3	2.19	0.43
1:D:338:VAL:HG21	1:D:354:LEU:CG	2.45	0.43
1:E:272:VAL:CG1	1:E:273:MET:N	2.80	0.43
1:E:303:ALA:O	1:E:304:GLN:C	2.57	0.43
1:E:404:PHE:C	1:E:406:ALA:H	2.21	0.43
1:F:303:ALA:O	1:F:304:GLN:C	2.57	0.43
1:A:6:PHE:CE1	1:B:249:PRO:HB2	2.54	0.42
1:B:67:ALA:O	1:B:69:LEU:N	2.52	0.42
1:B:87:LEU:O	1:B:241:ARG:NE	2.52	0.42
1:B:297:SER:HA	1:B:298:PRO:HD3	1.87	0.42
1:B:341:LEU:C	1:B:343:THR:H	2.22	0.42
1:C:80:ARG:HG3	1:C:102:THR:O	2.19	0.42
1:C:88:PHE:CE1	1:C:244:ALA:CB	3.02	0.42
1:C:251:LEU:HD13	1:C:272:VAL:HG22	2.00	0.42
1:D:88:PHE:CE1	1:D:244:ALA:HB2	2.54	0.42
1:E:220:PHE:CD1	1:E:220:PHE:C	2.92	0.42
1:E:252:VAL:O	1:E:270:LEU:HA	2.19	0.42
1:E:276:ASP:C	1:E:278:GLU:N	2.72	0.42
1:F:310:LEU:H	1:F:310:LEU:HG	1.52	0.42
1:F:341:LEU:C	1:F:343:THR:H	2.22	0.42
1:A:99:ARG:O	1:A:280:ALA:HB2	2.19	0.42
1:A:107:GLY:H	1:A:267:VAL:C	2.22	0.42
1:A:254:ASN:ND2	1:A:255:SER:N	2.64	0.42
1:B:220:PHE:CD1	1:B:220:PHE:C	2.92	0.42
1:B:325:GLU:HA	1:B:328:THR:CB	2.48	0.42
1:C:99:ARG:O	1:C:280:ALA:HB2	2.19	0.42
1:C:220:PHE:C	1:C:220:PHE:CD1	2.92	0.42
1:C:340:VAL:HB	1:C:401:ALA:CB	2.50	0.42
1:D:46:ILE:HG12	1:D:47:ILE:N	2.34	0.42
1:D:234:GLU:H	1:D:234:GLU:HG2	1.63	0.42
1:D:340:VAL:HB	1:D:401:ALA:CB	2.50	0.42
1:E:88:PHE:CE1	1:E:244:ALA:HB2	2.53	0.42
1:F:252:VAL:O	1:F:270:LEU:HA	2.19	0.42
1:F:254:ASN:ND2	1:F:255:SER:N	2.64	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:256:PHE:O	1:F:257:SER:C	2.57	0.42
1:A:107:GLY:H	1:A:267:VAL:CA	2.32	0.42
1:A:113:LYS:HD3	1:A:146:ILE:HG22	2.02	0.42
1:A:312:ASP:HB3	1:A:315:LEU:CD1	2.49	0.42
1:B:88:PHE:CE1	1:B:244:ALA:HB2	2.53	0.42
1:C:88:PHE:CE1	1:C:244:ALA:HB2	2.53	0.42
1:C:165:THR:C	1:C:167:GLY:N	2.72	0.42
1:C:209:ILE:O	1:C:210:GLU:C	2.57	0.42
1:C:278:GLU:OE1	1:C:282:ARG:NH1	2.52	0.42
1:C:312:ASP:HB3	1:C:315:LEU:CD1	2.49	0.42
1:D:84:ALA:N	1:D:85:PRO:CD	2.81	0.42
1:E:43:GLU:C	1:E:45:GLY:N	2.70	0.42
1:E:107:GLY:H	1:E:267:VAL:CA	2.32	0.42
1:E:173:LEU:HA	1:E:176:THR:OG1	2.20	0.42
1:E:210:GLU:O	1:E:214:ALA:HB2	2.19	0.42
1:E:382:ILE:CD1	1:E:386:ARG:HD3	2.36	0.42
1:F:220:PHE:C	1:F:220:PHE:CD1	2.92	0.42
1:F:240:ILE:H	1:F:240:ILE:HG13	1.31	0.42
1:A:216:GLU:C	1:A:217:LEU:HG	2.40	0.42
1:A:256:PHE:O	1:A:257:SER:C	2.57	0.42
1:A:276:ASP:C	1:A:278:GLU:N	2.72	0.42
1:B:5:MET:HE2	1:B:5:MET:HB3	1.98	0.42
1:B:15:ASP:OD1	1:B:17:ILE:HD11	2.19	0.42
1:B:256:PHE:O	1:B:257:SER:C	2.57	0.42
1:B:260:PHE:HB3	1:B:262:LEU:CD2	2.41	0.42
1:C:113:LYS:HD3	1:C:146:ILE:HG22	2.02	0.42
1:D:87:LEU:O	1:D:241:ARG:NE	2.52	0.42
1:D:99:ARG:O	1:D:280:ALA:HB2	2.19	0.42
1:D:113:LYS:HD3	1:D:146:ILE:HG22	2.02	0.42
1:E:233:MET:HB3	1:E:234:GLU:H	1.70	0.42
1:E:240:ILE:CA	1:E:243:ILE:HD12	2.50	0.42
1:F:46:ILE:HG12	1:F:47:ILE:N	2.34	0.42
1:F:71:LEU:CD2	1:F:72:PRO:HD2	2.47	0.42
1:F:210:GLU:O	1:F:214:ALA:HB2	2.19	0.42
1:F:216:GLU:C	1:F:217:LEU:HG	2.40	0.42
1:F:340:VAL:HB	1:F:401:ALA:CB	2.50	0.42
1:A:340:VAL:HB	1:A:401:ALA:CB	2.50	0.42
1:C:87:LEU:O	1:C:241:ARG:NE	2.52	0.42
1:C:216:GLU:C	1:C:217:LEU:HG	2.40	0.42
1:E:15:ASP:OD1	1:E:17:ILE:HD11	2.19	0.42
1:E:74:GLU:HB2	1:E:288:LYS:CE	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:99:ARG:O	1:F:280:ALA:HB2	2.19	0.42
1:F:234:GLU:H	1:F:234:GLU:HG2	1.63	0.42
1:F:380:TYR:C	1:F:381:LEU:HG	2.39	0.42
1:A:67:ALA:O	1:A:69:LEU:N	2.52	0.42
1:A:240:ILE:CA	1:A:243:ILE:HD12	2.50	0.42
1:A:334:ARG:HH22	1:A:358:GLY:N	2.17	0.42
1:A:393:ASN:ND2	1:A:395:ALA:CB	2.83	0.42
1:B:80:ARG:HG3	1:B:102:THR:O	2.19	0.42
1:B:340:VAL:HB	1:B:401:ALA:CB	2.50	0.42
1:C:46:ILE:HG12	1:C:47:ILE:N	2.34	0.42
1:C:107:GLY:H	1:C:267:VAL:C	2.22	0.42
1:C:341:LEU:C	1:C:343:THR:H	2.22	0.42
1:D:15:ASP:OD1	1:D:17:ILE:HD11	2.19	0.42
1:D:118:PHE:CD1	1:D:118:PHE:C	2.92	0.42
1:D:216:GLU:C	1:D:217:LEU:HG	2.40	0.42
1:E:193:HIS:HB3	1:E:197:GLY:CA	2.49	0.42
1:E:209:ILE:O	1:E:210:GLU:C	2.57	0.42
1:E:312:ASP:HB3	1:E:315:LEU:CD1	2.49	0.42
1:F:169:ARG:HG2	1:F:172:ASP:CB	2.45	0.42
1:F:209:ILE:O	1:F:210:GLU:C	2.57	0.42
1:F:263:TYR:CD1	1:F:263:TYR:N	2.70	0.42
1:F:276:ASP:C	1:F:278:GLU:N	2.72	0.42
1:F:393:ASN:ND2	1:F:395:ALA:CB	2.83	0.42
1:A:88:PHE:CE1	1:A:244:ALA:HB2	2.53	0.42
1:A:193:HIS:HB3	1:A:197:GLY:CA	2.49	0.42
1:A:210:GLU:O	1:A:214:ALA:HB2	2.19	0.42
1:A:252:VAL:O	1:A:270:LEU:HA	2.19	0.42
1:B:113:LYS:HD3	1:B:146:ILE:HG22	2.02	0.42
1:B:386:ARG:HG2	1:B:387:MET:N	2.35	0.42
1:C:71:LEU:CD2	1:C:72:PRO:HD2	2.47	0.42
1:C:240:ILE:CA	1:C:243:ILE:HD12	2.50	0.42
1:C:252:VAL:O	1:C:270:LEU:HA	2.19	0.42
1:C:390:ALA:C	1:C:392:LEU:N	2.73	0.42
1:E:67:ALA:O	1:E:69:LEU:N	2.52	0.42
1:F:80:ARG:HG3	1:F:102:THR:O	2.19	0.42
1:A:46:ILE:HG12	1:A:47:ILE:N	2.34	0.42
1:A:220:PHE:C	1:A:220:PHE:CD1	2.92	0.42
1:B:209:ILE:O	1:B:210:GLU:C	2.57	0.42
1:B:393:ASN:ND2	1:B:395:ALA:CB	2.83	0.42
1:C:67:ALA:O	1:C:69:LEU:N	2.52	0.42
1:D:67:ALA:O	1:D:69:LEU:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:312:ASP:HB3	1:D:315:LEU:CD1	2.49	0.42
1:E:5:MET:CE	1:F:274:CYS:SG	3.07	0.42
1:E:334:ARG:HH22	1:E:358:GLY:N	2.17	0.42
1:E:393:ASN:ND2	1:E:395:ALA:CB	2.83	0.42
1:F:5:MET:HE2	1:F:5:MET:HB3	1.97	0.42
1:F:23:ARG:HG3	1:F:374:ARG:CZ	2.50	0.42
1:F:118:PHE:C	1:F:120:LYS:N	2.73	0.42
1:A:88:PHE:CE1	1:A:244:ALA:CB	3.02	0.42
1:B:79:TYR:O	1:B:80:ARG:C	2.59	0.42
1:B:234:GLU:H	1:B:234:GLU:HG2	1.63	0.42
1:B:245:SER:O	1:B:246:ALA:C	2.59	0.42
1:B:276:ASP:C	1:B:278:GLU:N	2.72	0.42
1:C:118:PHE:C	1:C:120:LYS:N	2.73	0.42
1:D:80:ARG:HG3	1:D:102:THR:O	2.19	0.42
1:D:88:PHE:CE1	1:D:244:ALA:CB	3.02	0.42
1:D:211:ILE:H	1:D:211:ILE:HG13	1.48	0.42
1:D:276:ASP:C	1:D:278:GLU:N	2.72	0.42
1:E:46:ILE:HG12	1:E:47:ILE:N	2.34	0.42
1:E:88:PHE:CE1	1:E:244:ALA:CB	3.02	0.42
1:E:245:SER:O	1:E:246:ALA:C	2.59	0.42
1:E:256:PHE:O	1:E:257:SER:C	2.57	0.42
1:E:341:LEU:C	1:E:343:THR:H	2.22	0.42
1:E:380:TYR:C	1:E:381:LEU:HG	2.39	0.42
1:F:174:LEU:O	1:F:178:LYS:HG3	2.19	0.42
1:A:118:PHE:CD1	1:A:118:PHE:C	2.92	0.42
1:A:380:TYR:C	1:A:381:LEU:HG	2.39	0.42
1:B:46:ILE:HG12	1:B:47:ILE:N	2.34	0.42
1:B:254:ASN:ND2	1:B:255:SER:N	2.64	0.42
1:B:312:ASP:HB3	1:B:315:LEU:CD1	2.49	0.42
1:B:329:ARG:NH2	1:B:333:MET:HE3	2.33	0.42
1:C:286:GLN:O	1:C:289:ALA:HB3	2.20	0.42
1:C:338:VAL:HG21	1:C:354:LEU:CD2	2.50	0.42
1:D:165:THR:C	1:D:167:GLY:N	2.72	0.42
1:D:380:TYR:C	1:D:381:LEU:HG	2.39	0.42
1:E:113:LYS:HD3	1:E:146:ILE:HG22	2.02	0.42
1:E:118:PHE:CD1	1:E:118:PHE:C	2.92	0.42
1:E:238:TYR:O	1:E:241:ARG:HB2	2.20	0.42
1:E:396:ASN:HB2	1:E:397:VAL:H	1.75	0.42
1:F:96:LYS:H	1:F:96:LYS:HG2	1.64	0.42
1:A:40:TYR:O	1:A:47:ILE:HG23	2.20	0.41
1:A:80:ARG:HG3	1:A:102:THR:O	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:245:SER:O	1:A:246:ALA:C	2.59	0.41
1:B:238:TYR:O	1:B:241:ARG:HB2	2.20	0.41
1:B:312:ASP:CG	1:B:315:LEU:HG	2.40	0.41
1:C:254:ASN:ND2	1:C:255:SER:N	2.64	0.41
1:D:66:GLY:O	1:D:67:ALA:CB	2.68	0.41
1:D:286:GLN:O	1:D:289:ALA:HB3	2.20	0.41
1:D:312:ASP:CG	1:D:315:LEU:HG	2.40	0.41
1:F:66:GLY:O	1:F:67:ALA:CB	2.68	0.41
1:F:245:SER:O	1:F:246:ALA:C	2.59	0.41
1:F:312:ASP:HB3	1:F:315:LEU:CD1	2.49	0.41
1:A:5:MET:HB3	1:A:5:MET:HE2	1.83	0.41
1:A:6:PHE:HE1	1:B:249:PRO:CB	2.33	0.41
1:B:99:ARG:O	1:B:280:ALA:HB2	2.19	0.41
1:B:233:MET:HB3	1:B:234:GLU:H	1.70	0.41
1:C:210:GLU:O	1:C:214:ALA:HB2	2.20	0.41
1:C:380:TYR:C	1:C:381:LEU:HG	2.39	0.41
1:C:393:ASN:ND2	1:C:395:ALA:CB	2.83	0.41
1:D:40:TYR:O	1:D:47:ILE:CG2	2.69	0.41
1:D:254:ASN:ND2	1:D:255:SER:N	2.64	0.41
1:D:338:VAL:HG21	1:D:354:LEU:CD2	2.50	0.41
1:E:80:ARG:HG3	1:E:102:THR:O	2.19	0.41
1:E:386:ARG:HG2	1:E:387:MET:N	2.35	0.41
1:F:15:ASP:OD1	1:F:17:ILE:HD11	2.19	0.41
1:F:113:LYS:HD3	1:F:146:ILE:HG22	2.02	0.41
1:F:312:ASP:CG	1:F:315:LEU:HG	2.40	0.41
1:A:286:GLN:O	1:A:289:ALA:HB3	2.20	0.41
1:B:40:TYR:O	1:B:47:ILE:CG2	2.69	0.41
1:B:252:VAL:O	1:B:270:LEU:HA	2.19	0.41
1:B:286:GLN:O	1:B:289:ALA:HB3	2.20	0.41
1:C:40:TYR:O	1:C:47:ILE:CG2	2.69	0.41
1:C:173:LEU:HA	1:C:176:THR:OG1	2.20	0.41
1:C:312:ASP:CG	1:C:315:LEU:HG	2.40	0.41
1:D:40:TYR:O	1:D:47:ILE:HG23	2.20	0.41
1:D:79:TYR:O	1:D:80:ARG:C	2.59	0.41
1:D:238:TYR:O	1:D:241:ARG:HB2	2.20	0.41
1:E:23:ARG:HG3	1:E:374:ARG:CZ	2.50	0.41
1:E:168:VAL:O	1:E:168:VAL:HG13	2.21	0.41
1:E:340:VAL:HB	1:E:401:ALA:CB	2.50	0.41
1:F:173:LEU:HA	1:F:176:THR:OG1	2.20	0.41
1:F:245:SER:OG	1:F:246:ALA:N	2.53	0.41
1:F:286:GLN:O	1:F:289:ALA:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:393:ASN:HB3	1:F:396:ASN:ND2	2.36	0.41
1:A:23:ARG:HG3	1:A:374:ARG:CZ	2.50	0.41
1:A:173:LEU:HA	1:A:176:THR:OG1	2.20	0.41
1:B:87:LEU:N	1:B:87:LEU:CD2	2.75	0.41
1:B:338:VAL:HG21	1:B:354:LEU:CD2	2.50	0.41
1:C:79:TYR:O	1:C:80:ARG:C	2.59	0.41
1:C:276:ASP:C	1:C:278:GLU:N	2.72	0.41
1:D:23:ARG:HG3	1:D:374:ARG:CZ	2.50	0.41
1:D:252:VAL:O	1:D:270:LEU:HA	2.19	0.41
1:E:338:VAL:HG21	1:E:354:LEU:CD2	2.50	0.41
1:E:363:THR:OG1	1:E:385:GLY:HA2	2.21	0.41
1:E:390:ALA:C	1:E:392:LEU:N	2.73	0.41
1:F:336:GLU:O	1:F:340:VAL:CG2	2.69	0.41
1:A:338:VAL:HG21	1:A:354:LEU:CD2	2.50	0.41
1:B:173:LEU:HA	1:B:176:THR:OG1	2.20	0.41
1:B:240:ILE:CA	1:B:243:ILE:HD12	2.50	0.41
1:C:23:ARG:HG3	1:C:374:ARG:CZ	2.50	0.41
1:C:66:GLY:O	1:C:67:ALA:CB	2.68	0.41
1:C:73:MET:HB2	1:C:288:LYS:HD3	2.03	0.41
1:C:107:GLY:O	1:C:108:GLY:C	2.58	0.41
1:C:168:VAL:HG21	1:C:200:LEU:HD22	2.03	0.41
1:C:338:VAL:HG21	1:C:354:LEU:CG	2.45	0.41
1:E:312:ASP:CG	1:E:315:LEU:HG	2.40	0.41
1:E:336:GLU:O	1:E:340:VAL:CG2	2.69	0.41
1:F:79:TYR:O	1:F:80:ARG:C	2.59	0.41
1:F:238:TYR:O	1:F:241:ARG:HB2	2.20	0.41
1:A:15:ASP:OD1	1:A:17:ILE:HD11	2.19	0.41
1:A:73:MET:HB2	1:A:288:LYS:HD3	2.03	0.41
1:B:23:ARG:HG3	1:B:374:ARG:CZ	2.50	0.41
1:B:185:ILE:H	1:B:185:ILE:CD1	2.24	0.41
1:B:210:GLU:O	1:B:214:ALA:HB2	2.19	0.41
1:B:380:TYR:C	1:B:381:LEU:HG	2.39	0.41
1:D:58:ALA:O	1:D:62:ALA:CB	2.62	0.41
1:D:168:VAL:HG21	1:D:200:LEU:HD22	2.03	0.41
1:D:210:GLU:O	1:D:214:ALA:HB2	2.19	0.41
1:F:40:TYR:O	1:F:47:ILE:HG23	2.20	0.41
1:A:6:PHE:CE1	1:B:249:PRO:CB	3.04	0.41
1:D:73:MET:HB2	1:D:288:LYS:HD3	2.03	0.41
1:D:168:VAL:O	1:D:168:VAL:HG13	2.20	0.41
1:D:240:ILE:H	1:D:240:ILE:HG13	1.31	0.41
1:E:286:GLN:O	1:E:289:ALA:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:168:VAL:O	1:F:168:VAL:HG13	2.20	0.41
1:A:118:PHE:C	1:A:120:LYS:N	2.73	0.41
1:A:336:GLU:O	1:A:340:VAL:CG2	2.69	0.41
1:B:200:LEU:CB	1:B:204:GLN:NE2	2.84	0.41
1:E:40:TYR:O	1:E:47:ILE:CG2	2.69	0.41
1:E:216:GLU:C	1:E:217:LEU:HG	2.40	0.41
1:F:107:GLY:O	1:F:108:GLY:C	2.58	0.41
1:F:363:THR:OG1	1:F:385:GLY:HA2	2.21	0.41
1:A:87:LEU:N	1:A:87:LEU:CD2	2.75	0.41
1:A:168:VAL:HG13	1:A:168:VAL:O	2.21	0.41
1:A:263:TYR:CD1	1:A:263:TYR:N	2.70	0.41
1:A:297:SER:HA	1:A:298:PRO:HD3	1.87	0.41
1:B:40:TYR:O	1:B:47:ILE:HG23	2.20	0.41
1:B:50:LEU:HD12	1:B:260:PHE:O	2.21	0.41
1:B:66:GLY:O	1:B:67:ALA:CB	2.68	0.41
1:B:73:MET:HB2	1:B:288:LYS:HD3	2.03	0.41
1:B:323:VAL:CG1	1:B:324:GLU:N	2.84	0.41
1:B:336:GLU:O	1:B:340:VAL:CG2	2.69	0.41
1:B:355:ASN:O	1:B:356:GLN:C	2.59	0.41
1:C:40:TYR:O	1:C:47:ILE:HG23	2.20	0.41
1:C:96:LYS:H	1:C:96:LYS:HG2	1.64	0.41
1:C:211:ILE:H	1:C:211:ILE:HG13	1.48	0.41
1:D:50:LEU:HD12	1:D:260:PHE:O	2.21	0.41
1:D:118:PHE:C	1:D:120:LYS:N	2.73	0.41
1:D:173:LEU:HA	1:D:176:THR:OG1	2.20	0.41
1:D:245:SER:O	1:D:246:ALA:C	2.59	0.41
1:D:336:GLU:O	1:D:340:VAL:CG2	2.69	0.41
1:D:355:ASN:O	1:D:356:GLN:C	2.60	0.41
1:D:393:ASN:ND2	1:D:395:ALA:CB	2.83	0.41
1:E:40:TYR:O	1:E:47:ILE:HG23	2.20	0.41
1:E:66:GLY:O	1:E:67:ALA:CB	2.68	0.41
1:E:73:MET:HB2	1:E:288:LYS:HD3	2.03	0.41
1:E:84:ALA:N	1:E:85:PRO:CD	2.81	0.41
1:E:200:LEU:CB	1:E:204:GLN:NE2	2.84	0.41
1:F:168:VAL:HG21	1:F:200:LEU:HD22	2.03	0.41
1:F:200:LEU:CB	1:F:204:GLN:NE2	2.84	0.41
1:F:323:VAL:CG1	1:F:324:GLU:N	2.84	0.41
1:F:325:GLU:HA	1:F:328:THR:CB	2.48	0.41
1:F:338:VAL:HG21	1:F:354:LEU:CD2	2.50	0.41
1:A:393:ASN:HB3	1:A:396:ASN:ND2	2.36	0.41
1:C:50:LEU:HD12	1:C:260:PHE:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:238:TYR:O	1:C:241:ARG:HB2	2.20	0.41
1:C:245:SER:O	1:C:246:ALA:C	2.59	0.41
1:E:226:GLN:NE2	1:E:237:ALA:HB2	2.36	0.41
1:F:240:ILE:CA	1:F:243:ILE:HD12	2.50	0.41
1:F:308:ALA:O	1:F:315:LEU:HD12	2.21	0.41
1:F:386:ARG:HG2	1:F:387:MET:N	2.35	0.41
1:A:79:TYR:O	1:A:80:ARG:C	2.59	0.40
1:A:107:GLY:O	1:A:108:GLY:C	2.58	0.40
1:A:308:ALA:O	1:A:315:LEU:HD12	2.21	0.40
1:A:312:ASP:CG	1:A:315:LEU:HG	2.40	0.40
1:B:107:GLY:O	1:B:108:GLY:C	2.58	0.40
1:B:308:ALA:O	1:B:315:LEU:HD12	2.21	0.40
1:D:107:GLY:O	1:D:108:GLY:C	2.58	0.40
1:D:308:ALA:O	1:D:315:LEU:HD12	2.21	0.40
1:E:118:PHE:C	1:E:120:LYS:N	2.73	0.40
1:E:393:ASN:HB3	1:E:396:ASN:ND2	2.36	0.40
1:A:40:TYR:O	1:A:47:ILE:CG2	2.69	0.40
1:A:238:TYR:O	1:A:241:ARG:HB2	2.20	0.40
1:A:323:VAL:CG1	1:A:324:GLU:N	2.84	0.40
1:B:154:GLU:O	1:B:155:VAL:C	2.59	0.40
1:B:168:VAL:O	1:B:168:VAL:HG13	2.20	0.40
1:C:168:VAL:HG13	1:C:168:VAL:O	2.21	0.40
1:C:200:LEU:CB	1:C:204:GLN:NE2	2.84	0.40
1:C:336:GLU:O	1:C:340:VAL:CG2	2.69	0.40
1:C:355:ASN:O	1:C:356:GLN:C	2.60	0.40
1:C:393:ASN:HB3	1:C:396:ASN:ND2	2.36	0.40
1:D:76:LEU:HG	1:D:79:TYR:HB2	2.03	0.40
1:D:146:ILE:H	1:D:146:ILE:HG13	1.34	0.40
1:D:226:GLN:NE2	1:D:237:ALA:HB2	2.36	0.40
1:E:154:GLU:O	1:E:155:VAL:C	2.59	0.40
1:E:168:VAL:HG21	1:E:200:LEU:HD22	2.03	0.40
1:E:245:SER:OG	1:E:246:ALA:N	2.53	0.40
1:A:50:LEU:HD12	1:A:260:PHE:O	2.21	0.40
1:A:66:GLY:O	1:A:67:ALA:CB	2.68	0.40
1:A:226:GLN:NE2	1:A:237:ALA:HB2	2.36	0.40
1:A:310:LEU:H	1:A:310:LEU:HG	1.52	0.40
1:A:386:ARG:HG2	1:A:387:MET:N	2.35	0.40
1:B:118:PHE:C	1:B:120:LYS:N	2.73	0.40
1:B:400:VAL:O	1:B:403:ALA:HB3	2.22	0.40
1:C:118:PHE:C	1:C:118:PHE:CD1	2.92	0.40
1:C:211:ILE:O	1:C:215:ARG:HB2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:194:ASN:HA	1:D:195:PRO:HA	1.92	0.40
1:D:220:PHE:C	1:D:220:PHE:HD1	2.25	0.40
1:D:400:VAL:O	1:D:403:ALA:HB3	2.22	0.40
1:E:294:ASN:HB3	1:E:295:TYR:H	1.77	0.40
1:F:50:LEU:HD12	1:F:260:PHE:O	2.21	0.40
1:F:154:GLU:O	1:F:155:VAL:C	2.59	0.40
1:F:183:ARG:C	1:F:218:ILE:HD12	2.42	0.40
1:F:211:ILE:O	1:F:215:ARG:HB2	2.22	0.40
1:F:218:ILE:HA	1:F:219:PRO:HD3	1.95	0.40
1:F:355:ASN:O	1:F:356:GLN:C	2.60	0.40
1:A:363:THR:OG1	1:A:385:GLY:HA2	2.21	0.40
1:B:226:GLN:NE2	1:B:237:ALA:HB2	2.37	0.40
1:C:154:GLU:O	1:C:155:VAL:C	2.59	0.40
1:C:226:GLN:NE2	1:C:237:ALA:HB2	2.36	0.40
1:C:282:ARG:H	1:C:282:ARG:HG2	1.67	0.40
1:C:297:SER:HA	1:C:298:PRO:HD3	1.87	0.40
1:C:308:ALA:O	1:C:315:LEU:HD12	2.21	0.40
1:C:363:THR:OG1	1:C:385:GLY:HA2	2.21	0.40
1:D:99:ARG:H	1:D:99:ARG:HG2	1.71	0.40
1:D:233:MET:HB3	1:D:234:GLU:H	1.70	0.40
1:F:40:TYR:O	1:F:47:ILE:CG2	2.69	0.40
1:A:174:LEU:HD23	1:A:174:LEU:HA	1.91	0.40
1:A:200:LEU:CB	1:A:204:GLN:NE2	2.84	0.40
1:A:220:PHE:C	1:A:220:PHE:HD1	2.25	0.40
1:A:305:VAL:HG22	1:A:305:VAL:H	1.61	0.40
1:A:355:ASN:O	1:A:356:GLN:C	2.60	0.40
1:C:70:TYR:CD2	1:D:263:TYR:HB2	2.56	0.40
1:C:323:VAL:CG1	1:C:324:GLU:N	2.84	0.40
1:D:154:GLU:O	1:D:155:VAL:C	2.59	0.40
1:D:294:ASN:OD1	1:D:295:TYR:HD1	2.05	0.40
1:E:308:ALA:O	1:E:315:LEU:HD12	2.21	0.40
1:E:323:VAL:CG1	1:E:324:GLU:N	2.84	0.40

All (9) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:349:ASN:CG	1:E:216:GLU:OE1[1_545]	0.69	1.51
1:B:349:ASN:OD1	1:E:216:GLU:OE1[1_545]	0.87	1.33
1:B:349:ASN:OD1	1:E:216:GLU:CD[1_545]	1.22	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:394:THR:CG2	1:C:215:ARG:NH1[1_445]	1.65	0.55
1:B:349:ASN:CG	1:E:216:GLU:CD[1_545]	1.75	0.45
1:B:349:ASN:CB	1:E:216:GLU:OE1[1_545]	1.77	0.43
1:B:349:ASN:ND2	1:E:216:GLU:OE1[1_545]	1.83	0.37
1:B:351:ASP:OD2	1:E:215:ARG:O[1_545]	1.91	0.29
1:B:349:ASN:OD1	1:E:216:GLU:CG[1_545]	1.95	0.25

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	395/397 (100%)	254 (64%)	91 (23%)	50 (13%)	0	4
1	B	395/397 (100%)	254 (64%)	91 (23%)	50 (13%)	0	4
1	C	395/397 (100%)	254 (64%)	91 (23%)	50 (13%)	0	4
1	D	395/397 (100%)	254 (64%)	91 (23%)	50 (13%)	0	4
1	E	395/397 (100%)	254 (64%)	91 (23%)	50 (13%)	0	4
1	F	395/397 (100%)	254 (64%)	91 (23%)	50 (13%)	0	4
All	All	2370/2382 (100%)	1524 (64%)	546 (23%)	300 (13%)	0	4

All (300) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	65	HIS
1	A	70	TYR
1	A	141	GLU
1	A	145	ALA
1	A	170	PHE
1	A	233	MET
1	A	245	SER
1	A	248	LEU
1	A	307	ALA

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Mol	Chain	Res	Type
1	A	308	ALA
1	A	397	VAL
1	B	65	HIS
1	B	70	TYR
1	B	141	GLU
1	B	145	ALA
1	B	170	PHE
1	B	233	MET
1	B	245	SER
1	B	248	LEU
1	B	307	ALA
1	B	308	ALA
1	B	397	VAL
1	C	65	HIS
1	C	70	TYR
1	C	141	GLU
1	C	145	ALA
1	C	170	PHE
1	C	233	MET
1	C	245	SER
1	C	248	LEU
1	C	307	ALA
1	C	308	ALA
1	C	397	VAL
1	D	65	HIS
1	D	70	TYR
1	D	141	GLU
1	D	145	ALA
1	D	170	PHE
1	D	233	MET
1	D	245	SER
1	D	248	LEU
1	D	307	ALA
1	D	308	ALA
1	D	397	VAL
1	E	65	HIS
1	E	70	TYR
1	E	141	GLU
1	E	145	ALA
1	E	170	PHE
1	E	233	MET
1	E	245	SER

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Mol	Chain	Res	Type
1	E	248	LEU
1	E	307	ALA
1	E	308	ALA
1	E	397	VAL
1	F	65	HIS
1	F	70	TYR
1	F	141	GLU
1	F	145	ALA
1	F	170	PHE
1	F	233	MET
1	F	245	SER
1	F	248	LEU
1	F	307	ALA
1	F	308	ALA
1	F	397	VAL
1	A	44	ASP
1	A	68	SER
1	A	73	MET
1	A	82	ALA
1	A	140	TRP
1	A	144	VAL
1	A	172	ASP
1	A	199	ASP
1	A	246	ALA
1	A	280	ALA
1	A	302	GLY
1	A	356	GLN
1	B	44	ASP
1	B	68	SER
1	B	73	MET
1	B	82	ALA
1	B	140	TRP
1	B	144	VAL
1	B	172	ASP
1	B	199	ASP
1	B	246	ALA
1	B	280	ALA
1	B	302	GLY
1	B	356	GLN
1	C	44	ASP
1	C	68	SER
1	C	73	MET

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Mol	Chain	Res	Type
1	C	82	ALA
1	C	140	TRP
1	C	144	VAL
1	C	172	ASP
1	C	199	ASP
1	C	246	ALA
1	C	302	GLY
1	C	356	GLN
1	D	44	ASP
1	D	68	SER
1	D	73	MET
1	D	82	ALA
1	D	140	TRP
1	D	144	VAL
1	D	172	ASP
1	D	199	ASP
1	D	246	ALA
1	D	302	GLY
1	D	356	GLN
1	E	44	ASP
1	E	68	SER
1	E	73	MET
1	E	82	ALA
1	E	140	TRP
1	E	144	VAL
1	E	172	ASP
1	E	199	ASP
1	E	246	ALA
1	E	280	ALA
1	E	302	GLY
1	E	356	GLN
1	F	44	ASP
1	F	68	SER
1	F	73	MET
1	F	82	ALA
1	F	140	TRP
1	F	144	VAL
1	F	172	ASP
1	F	199	ASP
1	F	246	ALA
1	F	280	ALA
1	F	302	GLY

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Mol	Chain	Res	Type
1	F	356	GLN
1	A	9	VAL
1	A	51	GLN
1	A	67	ALA
1	A	113	LYS
1	A	169	ARG
1	A	178	LYS
1	A	183	ARG
1	A	239	ALA
1	A	241	ARG
1	A	294	ASN
1	B	9	VAL
1	B	51	GLN
1	B	67	ALA
1	B	113	LYS
1	B	169	ARG
1	B	178	LYS
1	B	183	ARG
1	B	239	ALA
1	B	241	ARG
1	B	294	ASN
1	B	386	ARG
1	C	9	VAL
1	C	51	GLN
1	C	67	ALA
1	C	113	LYS
1	C	169	ARG
1	C	178	LYS
1	C	183	ARG
1	C	239	ALA
1	C	241	ARG
1	C	280	ALA
1	C	294	ASN
1	D	9	VAL
1	D	51	GLN
1	D	67	ALA
1	D	113	LYS
1	D	169	ARG
1	D	178	LYS
1	D	183	ARG
1	D	239	ALA
1	D	241	ARG

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Mol	Chain	Res	Type
1	D	280	ALA
1	D	294	ASN
1	D	386	ARG
1	E	9	VAL
1	E	51	GLN
1	E	67	ALA
1	E	113	LYS
1	E	136	SER
1	E	169	ARG
1	E	178	LYS
1	E	183	ARG
1	E	239	ALA
1	E	241	ARG
1	E	294	ASN
1	F	9	VAL
1	F	51	GLN
1	F	67	ALA
1	F	113	LYS
1	F	169	ARG
1	F	178	LYS
1	F	183	ARG
1	F	239	ALA
1	F	241	ARG
1	F	294	ASN
1	A	136	SER
1	A	181	PRO
1	A	386	ARG
1	A	393	ASN
1	A	394	THR
1	B	136	SER
1	B	181	PRO
1	B	393	ASN
1	B	394	THR
1	C	136	SER
1	C	181	PRO
1	C	386	ARG
1	C	393	ASN
1	C	394	THR
1	D	136	SER
1	D	181	PRO
1	D	393	ASN
1	D	394	THR

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Mol	Chain	Res	Type
1	E	181	PRO
1	E	386	ARG
1	E	393	ASN
1	E	394	THR
1	F	136	SER
1	F	181	PRO
1	F	386	ARG
1	F	393	ASN
1	F	394	THR
1	A	164	ALA
1	A	244	ALA
1	A	257	SER
1	A	296	SER
1	B	164	ALA
1	B	244	ALA
1	B	257	SER
1	B	296	SER
1	C	164	ALA
1	C	244	ALA
1	C	257	SER
1	C	296	SER
1	D	164	ALA
1	D	244	ALA
1	D	257	SER
1	D	296	SER
1	E	164	ALA
1	E	244	ALA
1	E	257	SER
1	E	296	SER
1	F	164	ALA
1	F	244	ALA
1	F	257	SER
1	F	296	SER
1	A	89	GLY
1	B	89	GLY
1	C	89	GLY
1	D	89	GLY
1	E	89	GLY
1	F	89	GLY
1	A	107	GLY
1	A	146	ILE
1	A	155	VAL

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Mol	Chain	Res	Type
1	A	298	PRO
1	B	107	GLY
1	B	146	ILE
1	B	155	VAL
1	B	298	PRO
1	C	107	GLY
1	C	146	ILE
1	C	155	VAL
1	C	298	PRO
1	D	107	GLY
1	D	146	ILE
1	D	155	VAL
1	D	298	PRO
1	E	107	GLY
1	E	155	VAL
1	F	107	GLY
1	F	146	ILE
1	F	155	VAL
1	F	298	PRO
1	A	83	ILE
1	B	83	ILE
1	C	83	ILE
1	D	83	ILE
1	E	83	ILE
1	E	146	ILE
1	E	298	PRO
1	F	83	ILE
1	A	66	GLY
1	B	66	GLY
1	C	66	GLY
1	D	66	GLY
1	E	66	GLY
1	F	66	GLY
1	B	138	PRO
1	C	138	PRO
1	A	138	PRO
1	D	138	PRO
1	E	138	PRO
1	F	138	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	316/316 (100%)	196 (62%)	120 (38%)	0 1
1	B	316/316 (100%)	196 (62%)	120 (38%)	0 1
1	C	316/316 (100%)	196 (62%)	120 (38%)	0 1
1	D	316/316 (100%)	196 (62%)	120 (38%)	0 1
1	E	316/316 (100%)	196 (62%)	120 (38%)	0 1
1	F	316/316 (100%)	196 (62%)	120 (38%)	0 1
All	All	1896/1896 (100%)	1176 (62%)	720 (38%)	0 1

All (720) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	5	MET
1	A	7	GLN
1	A	8	LYS
1	A	9	VAL
1	A	10	ASP
1	A	12	TYR
1	A	15	ASP
1	A	21	MET
1	A	23	ARG
1	A	39	LEU
1	A	43	GLU
1	A	44	ASP
1	A	47	ILE
1	A	50	LEU
1	A	51	GLN
1	A	57	GLU
1	A	59	ARG
1	A	60	LEU
1	A	63	GLN
1	A	65	HIS
1	A	70	TYR
1	A	77	ASN

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Mol	Chain	Res	Type
1	A	80	ARG
1	A	87	LEU
1	A	91	ASP
1	A	92	HIS
1	A	94	VAL
1	A	95	LEU
1	A	96	LYS
1	A	99	ARG
1	A	102	THR
1	A	103	ILE
1	A	104	GLN
1	A	105	THR
1	A	114	VAL
1	A	117	ASP
1	A	118	PHE
1	A	135	VAL
1	A	136	SER
1	A	139	THR
1	A	142	ASN
1	A	143	HIS
1	A	146	ILE
1	A	156	SER
1	A	157	THR
1	A	170	PHE
1	A	173	LEU
1	A	183	ARG
1	A	185	ILE
1	A	187	LEU
1	A	189	HIS
1	A	199	ASP
1	A	200	LEU
1	A	201	THR
1	A	202	ASN
1	A	203	ASP
1	A	204	GLN
1	A	209	ILE
1	A	210	GLU
1	A	211	ILE
1	A	212	LEU
1	A	213	LYS
1	A	220	PHE
1	A	225	TYR

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Mol	Chain	Res	Type
1	A	226	GLN
1	A	228	PHE
1	A	240	ILE
1	A	241	ARG
1	A	248	LEU
1	A	251	LEU
1	A	252	VAL
1	A	254	ASN
1	A	255	SER
1	A	258	LYS
1	A	261	SER
1	A	262	LEU
1	A	263	TYR
1	A	265	GLU
1	A	266	ARG
1	A	270	LEU
1	A	271	SER
1	A	273	MET
1	A	276	ASP
1	A	278	GLU
1	A	282	ARG
1	A	284	LEU
1	A	288	LYS
1	A	296	SER
1	A	304	GLN
1	A	305	VAL
1	A	310	LEU
1	A	318	SER
1	A	325	GLU
1	A	327	ARG
1	A	328	THR
1	A	329	ARG
1	A	331	LEU
1	A	333	MET
1	A	336	GLU
1	A	337	LEU
1	A	339	LYS
1	A	340	VAL
1	A	342	SER
1	A	345	MET
1	A	347	GLU
1	A	348	ARG

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Mol	Chain	Res	Type
1	A	353	LEU
1	A	355	ASN
1	A	362	TYR
1	A	374	ARG
1	A	379	VAL
1	A	381	LEU
1	A	386	ARG
1	A	387	MET
1	A	394	THR
1	A	396	ASN
1	A	398	GLN
1	A	400	VAL
1	A	404	PHE
1	A	408	MET
1	B	5	MET
1	B	7	GLN
1	B	8	LYS
1	B	9	VAL
1	B	10	ASP
1	B	12	TYR
1	B	15	ASP
1	B	21	MET
1	B	23	ARG
1	B	39	LEU
1	B	43	GLU
1	B	44	ASP
1	B	47	ILE
1	B	50	LEU
1	B	51	GLN
1	B	57	GLU
1	B	59	ARG
1	B	60	LEU
1	B	63	GLN
1	B	65	HIS
1	B	70	TYR
1	B	77	ASN
1	B	80	ARG
1	B	87	LEU
1	B	91	ASP
1	B	92	HIS
1	B	94	VAL
1	B	95	LEU

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Mol	Chain	Res	Type
1	B	96	LYS
1	B	99	ARG
1	B	102	THR
1	B	103	ILE
1	B	104	GLN
1	B	105	THR
1	B	114	VAL
1	B	117	ASP
1	B	118	PHE
1	B	135	VAL
1	B	136	SER
1	B	139	THR
1	B	142	ASN
1	B	143	HIS
1	B	146	ILE
1	B	156	SER
1	B	157	THR
1	B	170	PHE
1	B	173	LEU
1	B	183	ARG
1	B	185	ILE
1	B	187	LEU
1	B	189	HIS
1	B	199	ASP
1	B	200	LEU
1	B	201	THR
1	B	202	ASN
1	B	203	ASP
1	B	204	GLN
1	B	209	ILE
1	B	210	GLU
1	B	211	ILE
1	B	212	LEU
1	B	213	LYS
1	B	220	PHE
1	B	225	TYR
1	B	226	GLN
1	B	228	PHE
1	B	240	ILE
1	B	241	ARG
1	B	248	LEU
1	B	251	LEU

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Mol	Chain	Res	Type
1	B	252	VAL
1	B	254	ASN
1	B	255	SER
1	B	258	LYS
1	B	261	SER
1	B	262	LEU
1	B	263	TYR
1	B	265	GLU
1	B	266	ARG
1	B	270	LEU
1	B	271	SER
1	B	273	MET
1	B	276	ASP
1	B	278	GLU
1	B	282	ARG
1	B	284	LEU
1	B	288	LYS
1	B	296	SER
1	B	304	GLN
1	B	305	VAL
1	B	310	LEU
1	B	318	SER
1	B	325	GLU
1	B	327	ARG
1	B	328	THR
1	B	329	ARG
1	B	331	LEU
1	B	333	MET
1	B	336	GLU
1	B	337	LEU
1	B	339	LYS
1	B	340	VAL
1	B	342	SER
1	B	345	MET
1	B	347	GLU
1	B	348	ARG
1	B	353	LEU
1	B	355	ASN
1	B	362	TYR
1	B	374	ARG
1	B	379	VAL
1	B	381	LEU

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Mol	Chain	Res	Type
1	B	386	ARG
1	B	387	MET
1	B	394	THR
1	B	396	ASN
1	B	398	GLN
1	B	400	VAL
1	B	404	PHE
1	B	408	MET
1	C	5	MET
1	C	7	GLN
1	C	8	LYS
1	C	9	VAL
1	C	10	ASP
1	C	12	TYR
1	C	15	ASP
1	C	21	MET
1	C	23	ARG
1	C	39	LEU
1	C	43	GLU
1	C	44	ASP
1	C	47	ILE
1	C	50	LEU
1	C	51	GLN
1	C	57	GLU
1	C	59	ARG
1	C	60	LEU
1	C	63	GLN
1	C	65	HIS
1	C	70	TYR
1	C	77	ASN
1	C	80	ARG
1	C	87	LEU
1	C	91	ASP
1	C	92	HIS
1	C	94	VAL
1	C	95	LEU
1	C	96	LYS
1	C	99	ARG
1	C	102	THR
1	C	103	ILE
1	C	104	GLN
1	C	105	THR

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Mol	Chain	Res	Type
1	C	114	VAL
1	C	117	ASP
1	C	118	PHE
1	C	135	VAL
1	C	136	SER
1	C	139	THR
1	C	142	ASN
1	C	143	HIS
1	C	146	ILE
1	C	156	SER
1	C	157	THR
1	C	170	PHE
1	C	173	LEU
1	C	183	ARG
1	C	185	ILE
1	C	187	LEU
1	C	189	HIS
1	C	199	ASP
1	C	200	LEU
1	C	201	THR
1	C	202	ASN
1	C	203	ASP
1	C	204	GLN
1	C	209	ILE
1	C	210	GLU
1	C	211	ILE
1	C	212	LEU
1	C	213	LYS
1	C	220	PHE
1	C	225	TYR
1	C	226	GLN
1	C	228	PHE
1	C	240	ILE
1	C	241	ARG
1	C	248	LEU
1	C	251	LEU
1	C	252	VAL
1	C	254	ASN
1	C	255	SER
1	C	258	LYS
1	C	261	SER
1	C	262	LEU

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Mol	Chain	Res	Type
1	C	263	TYR
1	C	265	GLU
1	C	266	ARG
1	C	270	LEU
1	C	271	SER
1	C	273	MET
1	C	276	ASP
1	C	278	GLU
1	C	282	ARG
1	C	284	LEU
1	C	288	LYS
1	C	296	SER
1	C	304	GLN
1	C	305	VAL
1	C	310	LEU
1	C	318	SER
1	C	325	GLU
1	C	327	ARG
1	C	328	THR
1	C	329	ARG
1	C	331	LEU
1	C	333	MET
1	C	336	GLU
1	C	337	LEU
1	C	339	LYS
1	C	340	VAL
1	C	342	SER
1	C	345	MET
1	C	347	GLU
1	C	348	ARG
1	C	353	LEU
1	C	355	ASN
1	C	362	TYR
1	C	374	ARG
1	C	379	VAL
1	C	381	LEU
1	C	386	ARG
1	C	387	MET
1	C	394	THR
1	C	396	ASN
1	C	398	GLN
1	C	400	VAL

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Mol	Chain	Res	Type
1	C	404	PHE
1	C	408	MET
1	D	5	MET
1	D	7	GLN
1	D	8	LYS
1	D	9	VAL
1	D	10	ASP
1	D	12	TYR
1	D	15	ASP
1	D	21	MET
1	D	23	ARG
1	D	39	LEU
1	D	43	GLU
1	D	44	ASP
1	D	47	ILE
1	D	50	LEU
1	D	51	GLN
1	D	57	GLU
1	D	59	ARG
1	D	60	LEU
1	D	63	GLN
1	D	65	HIS
1	D	70	TYR
1	D	77	ASN
1	D	80	ARG
1	D	87	LEU
1	D	91	ASP
1	D	92	HIS
1	D	94	VAL
1	D	95	LEU
1	D	96	LYS
1	D	99	ARG
1	D	102	THR
1	D	103	ILE
1	D	104	GLN
1	D	105	THR
1	D	114	VAL
1	D	117	ASP
1	D	118	PHE
1	D	135	VAL
1	D	136	SER
1	D	139	THR

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Mol	Chain	Res	Type
1	D	142	ASN
1	D	143	HIS
1	D	146	ILE
1	D	156	SER
1	D	157	THR
1	D	170	PHE
1	D	173	LEU
1	D	183	ARG
1	D	185	ILE
1	D	187	LEU
1	D	189	HIS
1	D	199	ASP
1	D	200	LEU
1	D	201	THR
1	D	202	ASN
1	D	203	ASP
1	D	204	GLN
1	D	209	ILE
1	D	210	GLU
1	D	211	ILE
1	D	212	LEU
1	D	213	LYS
1	D	220	PHE
1	D	225	TYR
1	D	226	GLN
1	D	228	PHE
1	D	240	ILE
1	D	241	ARG
1	D	248	LEU
1	D	251	LEU
1	D	252	VAL
1	D	254	ASN
1	D	255	SER
1	D	258	LYS
1	D	261	SER
1	D	262	LEU
1	D	263	TYR
1	D	265	GLU
1	D	266	ARG
1	D	270	LEU
1	D	271	SER
1	D	273	MET

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Mol	Chain	Res	Type
1	D	276	ASP
1	D	278	GLU
1	D	282	ARG
1	D	284	LEU
1	D	288	LYS
1	D	296	SER
1	D	304	GLN
1	D	305	VAL
1	D	310	LEU
1	D	318	SER
1	D	325	GLU
1	D	327	ARG
1	D	328	THR
1	D	329	ARG
1	D	331	LEU
1	D	333	MET
1	D	336	GLU
1	D	337	LEU
1	D	339	LYS
1	D	340	VAL
1	D	342	SER
1	D	345	MET
1	D	347	GLU
1	D	348	ARG
1	D	353	LEU
1	D	355	ASN
1	D	362	TYR
1	D	374	ARG
1	D	379	VAL
1	D	381	LEU
1	D	386	ARG
1	D	387	MET
1	D	394	THR
1	D	396	ASN
1	D	398	GLN
1	D	400	VAL
1	D	404	PHE
1	D	408	MET
1	E	5	MET
1	E	7	GLN
1	E	8	LYS
1	E	9	VAL

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Mol	Chain	Res	Type
1	E	10	ASP
1	E	12	TYR
1	E	15	ASP
1	E	21	MET
1	E	23	ARG
1	E	39	LEU
1	E	43	GLU
1	E	44	ASP
1	E	47	ILE
1	E	50	LEU
1	E	51	GLN
1	E	57	GLU
1	E	59	ARG
1	E	60	LEU
1	E	63	GLN
1	E	65	HIS
1	E	70	TYR
1	E	77	ASN
1	E	80	ARG
1	E	87	LEU
1	E	91	ASP
1	E	92	HIS
1	E	94	VAL
1	E	95	LEU
1	E	96	LYS
1	E	99	ARG
1	E	102	THR
1	E	103	ILE
1	E	104	GLN
1	E	105	THR
1	E	114	VAL
1	E	117	ASP
1	E	118	PHE
1	E	135	VAL
1	E	136	SER
1	E	139	THR
1	E	142	ASN
1	E	143	HIS
1	E	146	ILE
1	E	156	SER
1	E	157	THR
1	E	170	PHE

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Mol	Chain	Res	Type
1	E	173	LEU
1	E	183	ARG
1	E	185	ILE
1	E	187	LEU
1	E	189	HIS
1	E	199	ASP
1	E	200	LEU
1	E	201	THR
1	E	202	ASN
1	E	203	ASP
1	E	204	GLN
1	E	209	ILE
1	E	210	GLU
1	E	211	ILE
1	E	212	LEU
1	E	213	LYS
1	E	220	PHE
1	E	225	TYR
1	E	226	GLN
1	E	228	PHE
1	E	240	ILE
1	E	241	ARG
1	E	248	LEU
1	E	251	LEU
1	E	252	VAL
1	E	254	ASN
1	E	255	SER
1	E	258	LYS
1	E	261	SER
1	E	262	LEU
1	E	263	TYR
1	E	265	GLU
1	E	266	ARG
1	E	270	LEU
1	E	271	SER
1	E	273	MET
1	E	276	ASP
1	E	278	GLU
1	E	282	ARG
1	E	284	LEU
1	E	288	LYS
1	E	296	SER

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Mol	Chain	Res	Type
1	E	304	GLN
1	E	305	VAL
1	E	310	LEU
1	E	318	SER
1	E	325	GLU
1	E	327	ARG
1	E	328	THR
1	E	329	ARG
1	E	331	LEU
1	E	333	MET
1	E	336	GLU
1	E	337	LEU
1	E	339	LYS
1	E	340	VAL
1	E	342	SER
1	E	345	MET
1	E	347	GLU
1	E	348	ARG
1	E	353	LEU
1	E	355	ASN
1	E	362	TYR
1	E	374	ARG
1	E	379	VAL
1	E	381	LEU
1	E	386	ARG
1	E	387	MET
1	E	394	THR
1	E	396	ASN
1	E	398	GLN
1	E	400	VAL
1	E	404	PHE
1	E	408	MET
1	F	5	MET
1	F	7	GLN
1	F	8	LYS
1	F	9	VAL
1	F	10	ASP
1	F	12	TYR
1	F	15	ASP
1	F	21	MET
1	F	23	ARG
1	F	39	LEU

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Mol	Chain	Res	Type
1	F	43	GLU
1	F	44	ASP
1	F	47	ILE
1	F	50	LEU
1	F	51	GLN
1	F	57	GLU
1	F	59	ARG
1	F	60	LEU
1	F	63	GLN
1	F	65	HIS
1	F	70	TYR
1	F	77	ASN
1	F	80	ARG
1	F	87	LEU
1	F	91	ASP
1	F	92	HIS
1	F	94	VAL
1	F	95	LEU
1	F	96	LYS
1	F	99	ARG
1	F	102	THR
1	F	103	ILE
1	F	104	GLN
1	F	105	THR
1	F	114	VAL
1	F	117	ASP
1	F	118	PHE
1	F	135	VAL
1	F	136	SER
1	F	139	THR
1	F	142	ASN
1	F	143	HIS
1	F	146	ILE
1	F	156	SER
1	F	157	THR
1	F	170	PHE
1	F	173	LEU
1	F	183	ARG
1	F	185	ILE
1	F	187	LEU
1	F	189	HIS
1	F	199	ASP

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Mol	Chain	Res	Type
1	F	200	LEU
1	F	201	THR
1	F	202	ASN
1	F	203	ASP
1	F	204	GLN
1	F	209	ILE
1	F	210	GLU
1	F	211	ILE
1	F	212	LEU
1	F	213	LYS
1	F	220	PHE
1	F	225	TYR
1	F	226	GLN
1	F	228	PHE
1	F	240	ILE
1	F	241	ARG
1	F	248	LEU
1	F	251	LEU
1	F	252	VAL
1	F	254	ASN
1	F	255	SER
1	F	258	LYS
1	F	261	SER
1	F	262	LEU
1	F	263	TYR
1	F	265	GLU
1	F	266	ARG
1	F	270	LEU
1	F	271	SER
1	F	273	MET
1	F	276	ASP
1	F	278	GLU
1	F	282	ARG
1	F	284	LEU
1	F	288	LYS
1	F	296	SER
1	F	304	GLN
1	F	305	VAL
1	F	310	LEU
1	F	318	SER
1	F	325	GLU
1	F	327	ARG

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Mol	Chain	Res	Type
1	F	328	THR
1	F	329	ARG
1	F	331	LEU
1	F	333	MET
1	F	336	GLU
1	F	337	LEU
1	F	339	LYS
1	F	340	VAL
1	F	342	SER
1	F	345	MET
1	F	347	GLU
1	F	348	ARG
1	F	353	LEU
1	F	355	ASN
1	F	362	TYR
1	F	374	ARG
1	F	379	VAL
1	F	381	LEU
1	F	386	ARG
1	F	387	MET
1	F	394	THR
1	F	396	ASN
1	F	398	GLN
1	F	400	VAL
1	F	404	PHE
1	F	408	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (78) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	7	GLN
1	A	42	ASN
1	A	51	GLN
1	A	61	ASN
1	A	104	GLN
1	A	142	ASN
1	A	166	ASN
1	A	194	ASN
1	A	226	GLN
1	A	254	ASN
1	A	311	ASN
1	A	356	GLN

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Mol	Chain	Res	Type
1	A	398	GLN
1	B	7	GLN
1	B	42	ASN
1	B	51	GLN
1	B	61	ASN
1	B	104	GLN
1	B	142	ASN
1	B	166	ASN
1	B	194	ASN
1	B	226	GLN
1	B	254	ASN
1	B	311	ASN
1	B	356	GLN
1	B	398	GLN
1	C	7	GLN
1	C	42	ASN
1	C	51	GLN
1	C	61	ASN
1	C	104	GLN
1	C	142	ASN
1	C	166	ASN
1	C	194	ASN
1	C	226	GLN
1	C	254	ASN
1	C	311	ASN
1	C	356	GLN
1	C	398	GLN
1	D	7	GLN
1	D	42	ASN
1	D	51	GLN
1	D	61	ASN
1	D	104	GLN
1	D	142	ASN
1	D	166	ASN
1	D	194	ASN
1	D	226	GLN
1	D	254	ASN
1	D	311	ASN
1	D	356	GLN
1	D	398	GLN
1	E	7	GLN
1	E	42	ASN

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Mol	Chain	Res	Type
1	E	51	GLN
1	E	61	ASN
1	E	104	GLN
1	E	142	ASN
1	E	166	ASN
1	E	194	ASN
1	E	226	GLN
1	E	254	ASN
1	E	311	ASN
1	E	356	GLN
1	E	398	GLN
1	F	7	GLN
1	F	42	ASN
1	F	51	GLN
1	F	61	ASN
1	F	104	GLN
1	F	142	ASN
1	F	166	ASN
1	F	194	ASN
1	F	226	GLN
1	F	254	ASN
1	F	311	ASN
1	F	356	GLN
1	F	398	GLN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

6 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
2	PLP	F	500	1	15,15,16	2.16	4 (26%)	20,22,23	2.35	4 (20%)
2	PLP	C	500	1	15,15,16	2.16	4 (26%)	20,22,23	2.36	4 (20%)
2	PLP	A	500	1	15,15,16	2.15	4 (26%)	20,22,23	2.35	4 (20%)
2	PLP	D	500	1	15,15,16	2.17	4 (26%)	20,22,23	2.37	4 (20%)
2	PLP	E	500	1	15,15,16	2.15	4 (26%)	20,22,23	2.36	4 (20%)
2	PLP	B	500	1	15,15,16	2.15	4 (26%)	20,22,23	2.35	4 (20%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	PLP	F	500	1	-	5/6/6/8	0/1/1/1
2	PLP	C	500	1	-	5/6/6/8	0/1/1/1
2	PLP	A	500	1	-	5/6/6/8	0/1/1/1
2	PLP	D	500	1	-	5/6/6/8	0/1/1/1
2	PLP	E	500	1	-	5/6/6/8	0/1/1/1
2	PLP	B	500	1	-	5/6/6/8	0/1/1/1

All (24) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	500	PLP	C4A-C4	6.28	1.64	1.51
2	C	500	PLP	C4A-C4	6.26	1.64	1.51
2	A	500	PLP	C4A-C4	6.24	1.64	1.51
2	F	500	PLP	C4A-C4	6.23	1.64	1.51
2	E	500	PLP	C4A-C4	6.22	1.64	1.51
2	B	500	PLP	C4A-C4	6.20	1.64	1.51
2	F	500	PLP	C3-C2	-2.88	1.38	1.40
2	D	500	PLP	C3-C2	-2.87	1.38	1.40
2	E	500	PLP	C3-C2	-2.84	1.38	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	500	PLP	C6-C5	-2.84	1.31	1.37
2	A	500	PLP	C3-C2	-2.83	1.38	1.40
2	B	500	PLP	C3-C2	-2.82	1.38	1.40
2	D	500	PLP	C6-C5	-2.81	1.31	1.37
2	E	500	PLP	C6-C5	-2.81	1.31	1.37
2	C	500	PLP	C6-C5	-2.81	1.31	1.37
2	A	500	PLP	C6-C5	-2.81	1.31	1.37
2	B	500	PLP	C6-C5	-2.80	1.31	1.37
2	C	500	PLP	C3-C2	-2.77	1.38	1.40
2	B	500	PLP	P-O3P	-2.11	1.46	1.54
2	D	500	PLP	P-O3P	-2.11	1.46	1.54
2	A	500	PLP	P-O3P	-2.11	1.46	1.54
2	C	500	PLP	P-O3P	-2.10	1.46	1.54
2	F	500	PLP	P-O3P	-2.10	1.46	1.54
2	E	500	PLP	P-O3P	-2.09	1.46	1.54

All (24) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	D	500	PLP	O4P-C5A-C5	8.03	124.66	109.35
2	E	500	PLP	O4P-C5A-C5	8.02	124.64	109.35
2	C	500	PLP	O4P-C5A-C5	8.02	124.62	109.35
2	F	500	PLP	O4P-C5A-C5	8.02	124.62	109.35
2	A	500	PLP	O4P-C5A-C5	8.00	124.60	109.35
2	B	500	PLP	O4P-C5A-C5	7.99	124.58	109.35
2	D	500	PLP	C5A-C5-C6	-3.66	113.35	119.37
2	E	500	PLP	C5A-C5-C6	-3.66	113.36	119.37
2	A	500	PLP	C5A-C5-C6	-3.64	113.39	119.37
2	B	500	PLP	C5A-C5-C6	-3.64	113.39	119.37
2	C	500	PLP	C5A-C5-C6	-3.64	113.39	119.37
2	F	500	PLP	C5A-C5-C6	-3.61	113.43	119.37
2	E	500	PLP	C6-C5-C4	2.69	120.28	118.16
2	D	500	PLP	C6-C5-C4	2.67	120.26	118.16
2	E	500	PLP	O3P-P-O1P	2.64	121.02	110.68
2	D	500	PLP	O3P-P-O1P	2.64	121.01	110.68
2	A	500	PLP	O3P-P-O1P	2.64	121.00	110.68
2	F	500	PLP	O3P-P-O1P	2.63	120.99	110.68
2	C	500	PLP	O3P-P-O1P	2.63	120.98	110.68
2	B	500	PLP	O3P-P-O1P	2.63	120.97	110.68
2	F	500	PLP	C6-C5-C4	2.61	120.22	118.16
2	A	500	PLP	C6-C5-C4	2.61	120.21	118.16
2	C	500	PLP	C6-C5-C4	2.61	120.21	118.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	500	PLP	C6-C5-C4	2.58	120.19	118.16

There are no chirality outliers.

All (30) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	500	PLP	C4-C5-C5A-O4P
2	A	500	PLP	C6-C5-C5A-O4P
2	A	500	PLP	C5A-O4P-P-O1P
2	A	500	PLP	C5A-O4P-P-O2P
2	A	500	PLP	C5A-O4P-P-O3P
2	B	500	PLP	C4-C5-C5A-O4P
2	B	500	PLP	C6-C5-C5A-O4P
2	B	500	PLP	C5A-O4P-P-O1P
2	B	500	PLP	C5A-O4P-P-O2P
2	B	500	PLP	C5A-O4P-P-O3P
2	C	500	PLP	C4-C5-C5A-O4P
2	C	500	PLP	C6-C5-C5A-O4P
2	C	500	PLP	C5A-O4P-P-O1P
2	C	500	PLP	C5A-O4P-P-O2P
2	C	500	PLP	C5A-O4P-P-O3P
2	D	500	PLP	C4-C5-C5A-O4P
2	D	500	PLP	C6-C5-C5A-O4P
2	D	500	PLP	C5A-O4P-P-O1P
2	D	500	PLP	C5A-O4P-P-O2P
2	D	500	PLP	C5A-O4P-P-O3P
2	E	500	PLP	C4-C5-C5A-O4P
2	E	500	PLP	C6-C5-C5A-O4P
2	E	500	PLP	C5A-O4P-P-O1P
2	E	500	PLP	C5A-O4P-P-O2P
2	E	500	PLP	C5A-O4P-P-O3P
2	F	500	PLP	C4-C5-C5A-O4P
2	F	500	PLP	C6-C5-C5A-O4P
2	F	500	PLP	C5A-O4P-P-O1P
2	F	500	PLP	C5A-O4P-P-O2P
2	F	500	PLP	C5A-O4P-P-O3P

There are no ring outliers.

6 monomers are involved in 6 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	F	500	PLP	1	0
2	C	500	PLP	1	0
2	A	500	PLP	1	0
2	D	500	PLP	1	0
2	E	500	PLP	1	0
2	B	500	PLP	1	0

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

EDS was not executed - this section is therefore empty.

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

EDS was not executed - this section is therefore empty.

6.3 Carbohydrates

EDS was not executed - this section is therefore empty.

6.4 Ligands

EDS was not executed - this section is therefore empty.

6.5 Other polymers

EDS was not executed - this section is therefore empty.