



Full wwPDB X-ray Structure Validation Report

Feb 28, 2014 – 11:40 PM GMT

PDB ID : 3SHM
Title : Structure-function Analysis of Receptor Binding in Adeno-Associated Virus Serotype 6 (AAV-6)
Authors : Xie, Q.; Lerch, T.F.; Meyer, N.L.; Chapman, M.S.
Deposited on : 2011-06-16
Resolution : 3.02 Å(reported)

This is a full wwPDB validation report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at <http://wwpdb.org/ValidationPDFNotes.html>

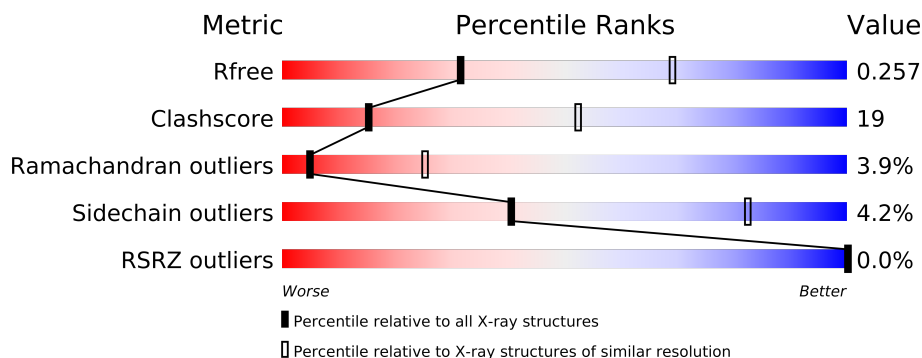
The following versions of software and data (see [references](#)) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.15 2013
Xtriage (Phenix) : dev-1323
EDS : stable22639
Percentile statistics : 21963
Refmac : 5.8.0049
CCP4 : 6.3.0 (Settle)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : stable22683

1 Overall quality at a glance

The reported resolution of this entry is 3.02 Å.

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






Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	66092	1332 (3.04-3.00)
Clashscore	79885	1732 (3.04-3.00)
Ramachandran outliers	78287	1669 (3.04-3.00)
Sidechain outliers	78261	1672 (3.04-3.00)
RSRZ outliers	66119	1333 (3.04-3.00)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density.

Mol	Chain	Length	Quality of chain
1	A	516	<div><div></div><div></div></div>
1	B	516	<div><div></div><div></div></div>
1	C	516	<div><div></div><div></div></div>
1	D	516	<div><div></div><div></div></div>
1	E	516	<div><div></div><div></div></div>
1	F	516	<div><div></div><div></div></div>
1	G	516	<div><div></div><div></div></div>
1	H	516	<div><div></div><div></div></div>
1	I	516	<div><div></div><div></div></div>
1	J	516	<div><div></div><div></div></div>
1	K	516	<div><div></div><div></div></div>
1	L	516	<div><div></div><div></div></div>
1	M	516	<div><div></div><div></div></div>
1	N	516	<div><div></div><div></div></div>

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Mol	Chain	Length	Quality of chain
1	O	516	
1	P	516	
1	Q	516	
1	R	516	
1	S	516	
1	T	516	

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 82000 atoms, of which 0 are hydrogen and 0 are deuterium.

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 Capsid protein VP1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	B	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	C	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	D	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	E	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	F	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	G	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	H	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	I	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	J	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	K	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	L	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	M	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	N	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	O	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			
1	P	516	Total	C	N	O	S	0	0	0
			4100	2596	708	780	16			

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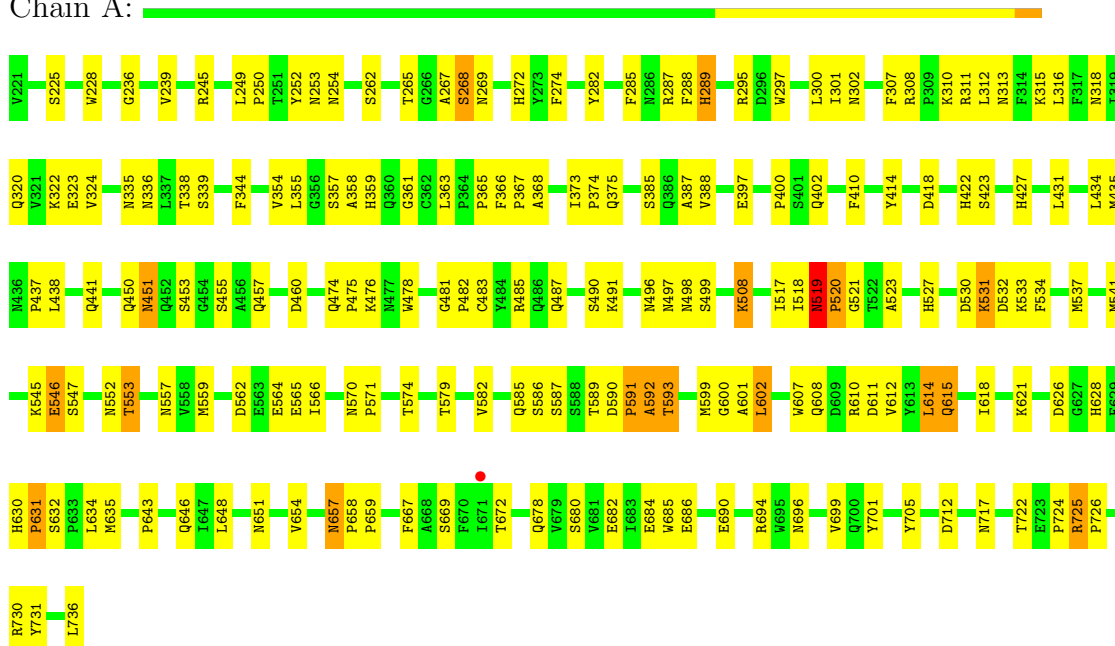
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	Q	516	Total 4100	C 2596	N 708	O 780	S 16	0	0	0
1	R	516	Total 4100	C 2596	N 708	O 780	S 16	0	0	0
1	S	516	Total 4100	C 2596	N 708	O 780	S 16	0	0	0
1	T	516	Total 4100	C 2596	N 708	O 780	S 16	0	0	0

3 Residue-property plots

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

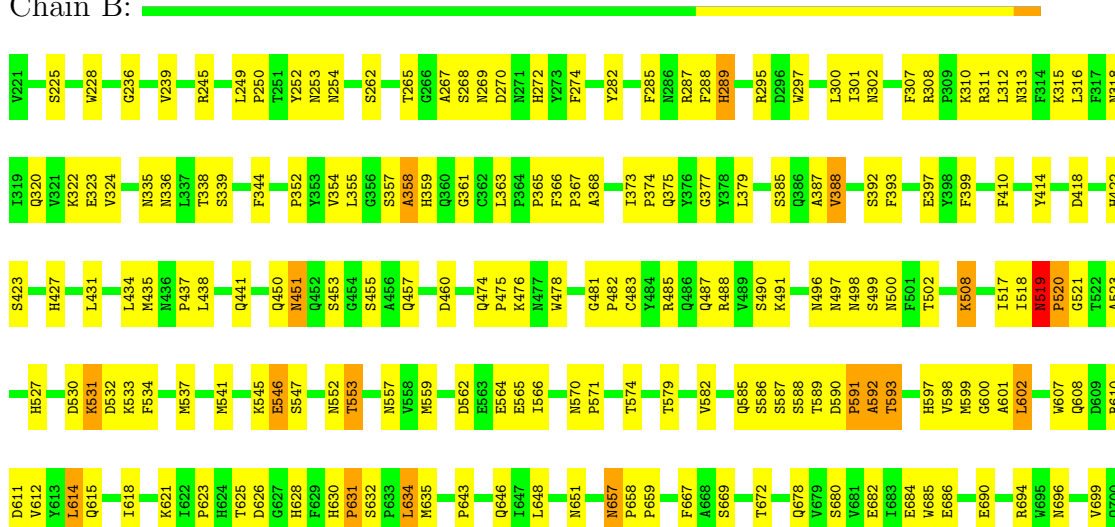
• Molecule 1: Capsid protein VP1

Chain A:



• Molecule 1: Capsid protein VP1

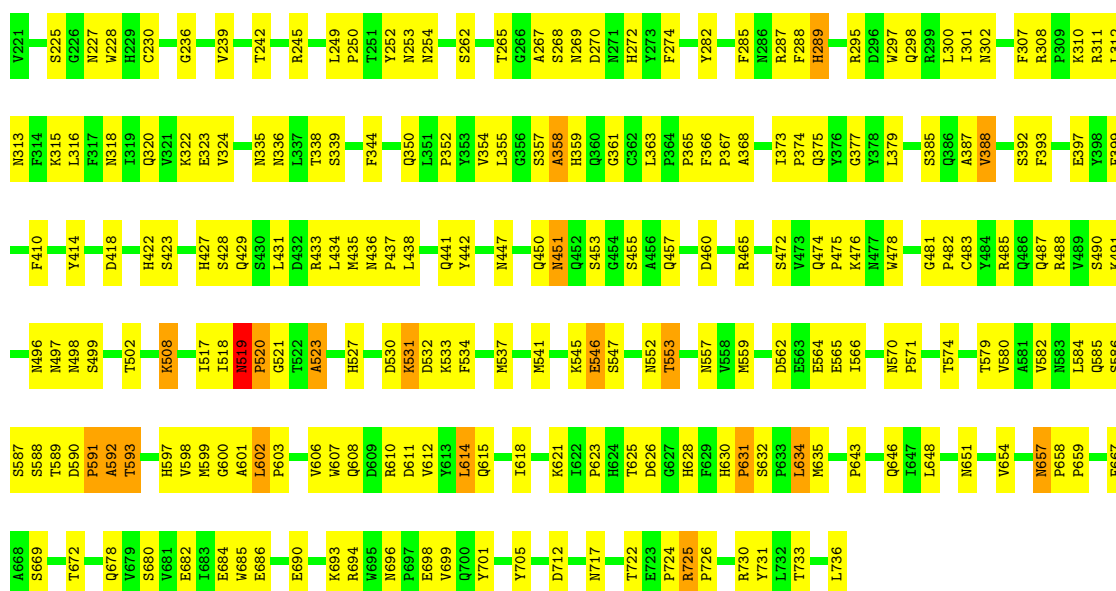
Chain B:





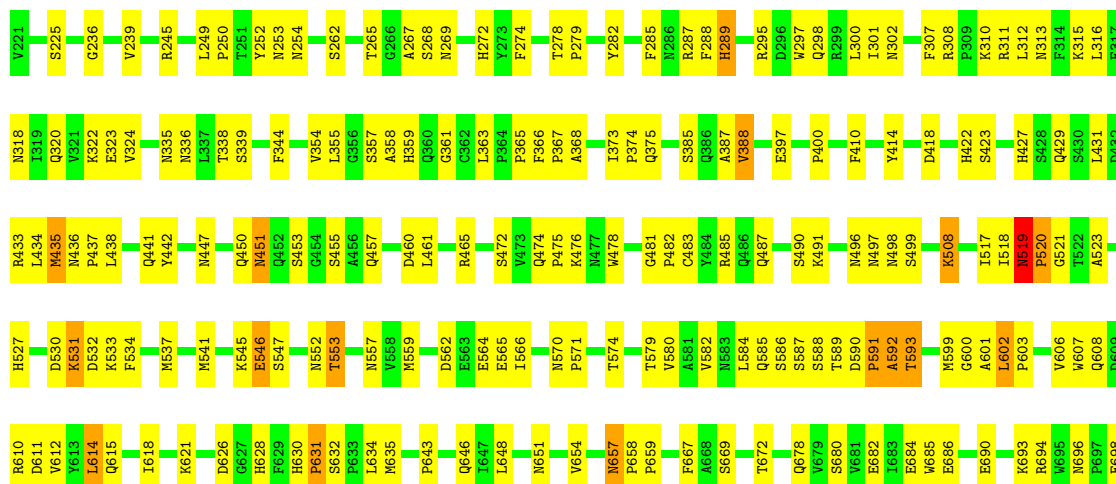
• Molecule 1: Capsid protein VP1

Chain F:



• Molecule 1: Capsid protein VP1

Chain G:



V699 Q700 Y701 Y705 D712 N717 T722 E723 P724 R725 P726 Y730 Y731 L736

• Molecule 1: Capsid protein VP1

Chain H:

V221 S225 G236 V239 R245 L249 P250 T251 Y252 N253 N254 S262 T265 G266 A267 S268 N269 D270 N271 H272 Y273 F274 Y282 F285 N286 R287 F288 H289 R295 D296 W297 Q298 R299 L300 L301 N302 F307 R308 P309 K310 R311 L312 N313 F314 K315 L316 F317 N318 I319

Q320 V321 K322 E323 V324 N335 R336 L337 T338 S339 F344 V354 L355 G356 G357 A358 H359 Q360 G361 C362 L363 P364 P365 F366 P367 A368 I373 P374 Q375 Y376 G377 Y378 L379 S385 Q386 A387 V388 S392 F393 E397 Y398 F399 P400 F410 N496 N497 N498 S499 N500 F501 T502 S423 K508

H427 S428 Q429 S430 L431 D432 R433 L434 M435 T436 P437 L438 Q441 Y442 N447 Q450 M451 G452 G454 S455 A456 Q457 D460 L461 R465 S472 V473 Q474 P475 K476 M477 W478 G481 P482 C483 R485 Q486 Q487 S490 K491 N496 N497 N498 S499 N500 F501 T502 S423 K508

I517 I518 H519 P520 G521 T522 A523 H527 D530 K531 D532 K533 F534 M537 H541 K545 E546 G547 S547 N552 T553 N557 P558 M559 D562 E563 E564 E565 I566 K567 N570 P571 T574 T579 V582 N583 L584 O585 S586 S587 S588 T589 D590 P591 A592 T593 H597

V598 M599 G600 A601 P603 V606 W607 Q608 D609 R610 D611 V612 Y613 L614 Q615 I618 K621 T625 D626 G627 H628 F629 H630 H631 S632 S633 L634 M635 P643 Q646 I647 L648 N651 V654 N657 P658 P659 F667 A668 S669 T672 Q678 V679 S680 V681 E682 I683

E684 M685 E686 E690 N691 S692 K693 R694 W695 P697 E698 V699 Q700 Y701 Y705 N717 T722 R725 P726 R730 Y731 L732 T733 L736

• Molecule 1: Capsid protein VP1

Chain I:

V221 S225 W228 G236 V239 R245 L249 P250 T251 Y252 N253 N254 S262 T265 G266 A267 S268 N269 D270 N271 H272 Y273 F274 Y282 F285 N286 R287 F288 H289 R295 D296 W297 Q298 R299 L300 L301 N302 F307 R308 P309 K310 R311 L312 N313 F314 K315 L316 F317

N318 I319 V321 K322 E323 V324 N335 R336 L337 T338 S339 F344 V354 L355 G356 G357 A358 H359 Q360 G361 C362 L363 P364 P365 F366 P367 A368 I373 P374 Q375 Y376 G377 Y378 L379 S385 Q386 A387 V388 S392 F393 E397 Y398 F399 P400 S401 Q402 F410 N496 N497 N498

D418 H422 S423 H427 S428 Q429 S430 L431 D432 R433 L434 M435 T436 P437 L438 Q441 Y442 N447 Q450 M451 G452 G454 S455 A456 Q457 D460 L461 R465 S472 V473 Q474 P475 K476 M477 W478 G481 P482 C483 R485 Q486 Q487 S490 K491 N496 N497 N498

S499 T502 K508 I517 I518 H519 P520 G521 T522 A523 H527 D530 K531 D532 K533 F534 M537 H541 K545 E546 G547 S547 N552 T553 N557 P558 M559 D562 E563 E564 E565 I566 K567 N570 P571 T574 T579 V582 N583 L584 O585 S586 S587 S588 T589 D590 P591

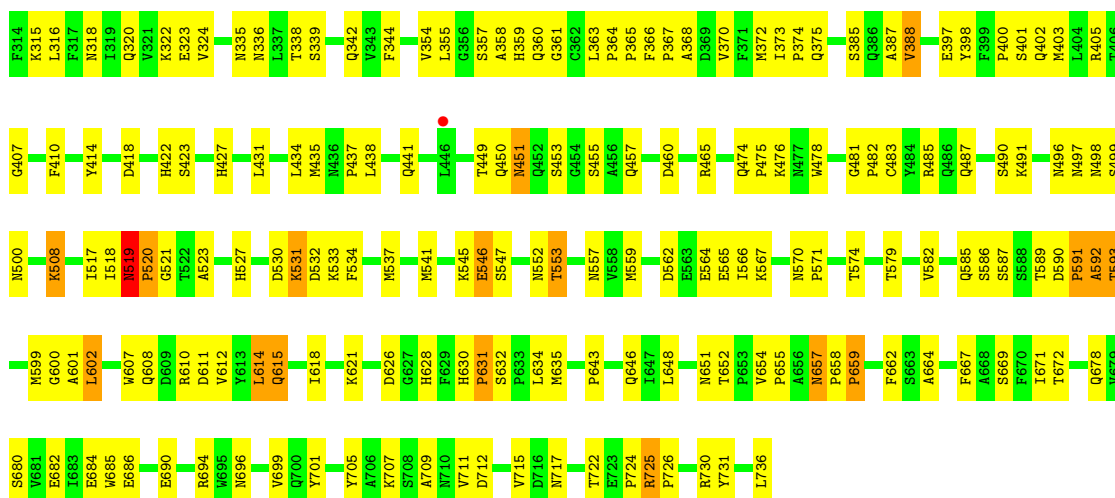
A592 T593 H597 V598 G600 A601 P603 V606 W607 Q608 D609 R610 D611 V612 Y613 L614 Q615 I618 K621 T625 D626 G627 H628 F629 H630 H631 S632 S633 L634 M635 P643 Q646 I647 L648 N651 V654 N657 P658 P659 F667 A668 S669 T672

Q678 V679 S680 E682 E684 W685 E686 E690 K693 R694 W695 P697 E698 V699 Q700 Y701 Y705 N717 T722 R725 P726 R730 Y731 L732 T733 L736

• Molecule 1: Capsid protein VP1

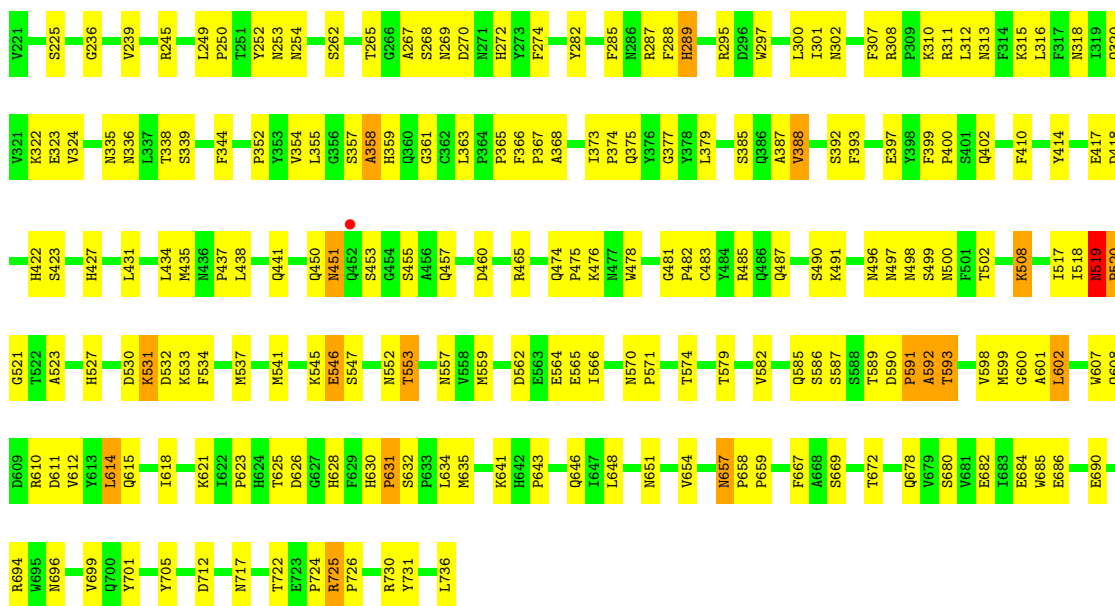
Chain J:

V221 S225 W228 D231 G236 V239 R245 L249 P250 T251 Y252 N253 N254 S262 T265 G266 A267 S268 N269 D272 Y273 F274 Y282 F285 N286 R287 F288 H289 R295 D296 W297 L300 L301 N302 F307 R308 P309 K310 R311 L312 N313



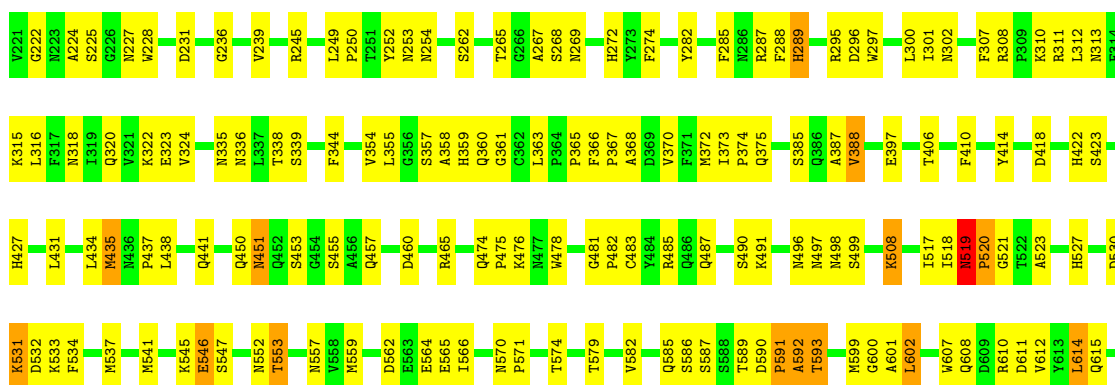
- Molecule 1: Capsid protein VP1

Chain K:



- Molecule 1: Capsid protein VP1

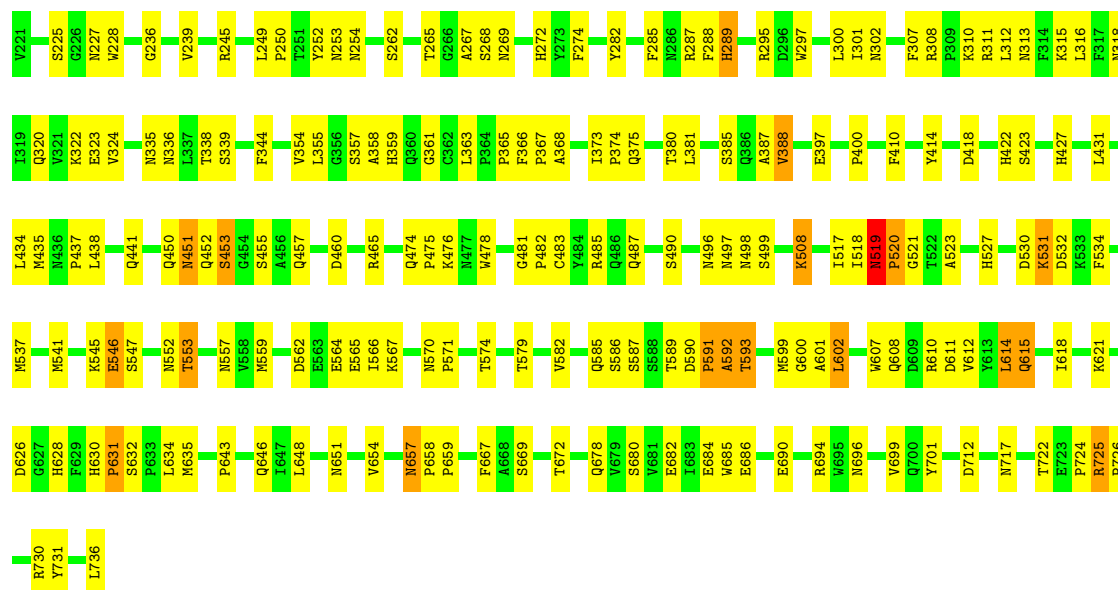
Chain L:





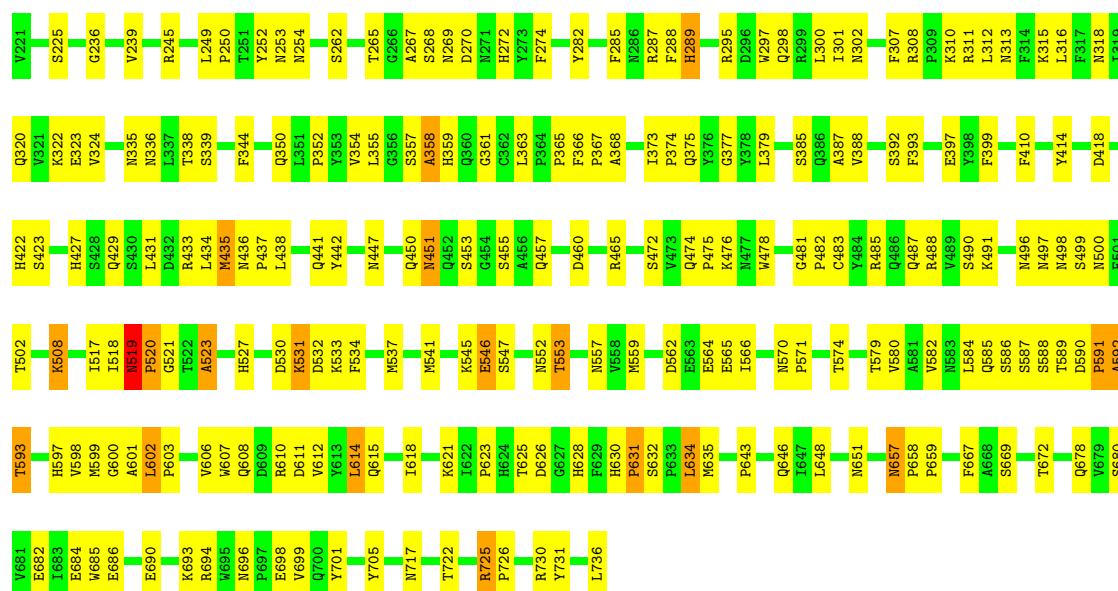
• Molecule 1: Capsid protein VP1

Chain M:



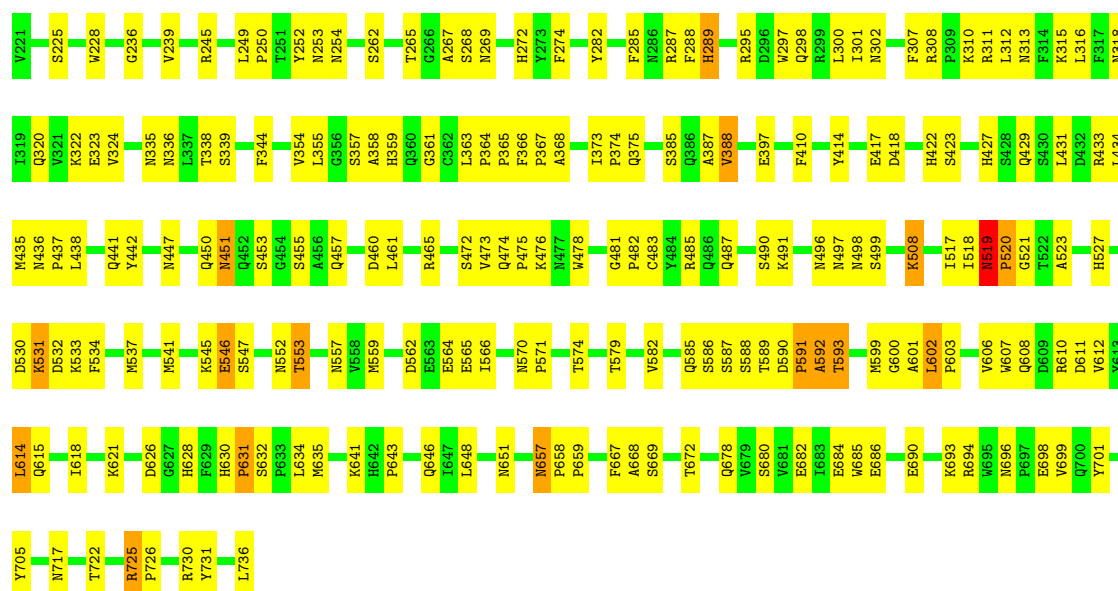
• Molecule 1: Capsid protein VP1

Chain N:



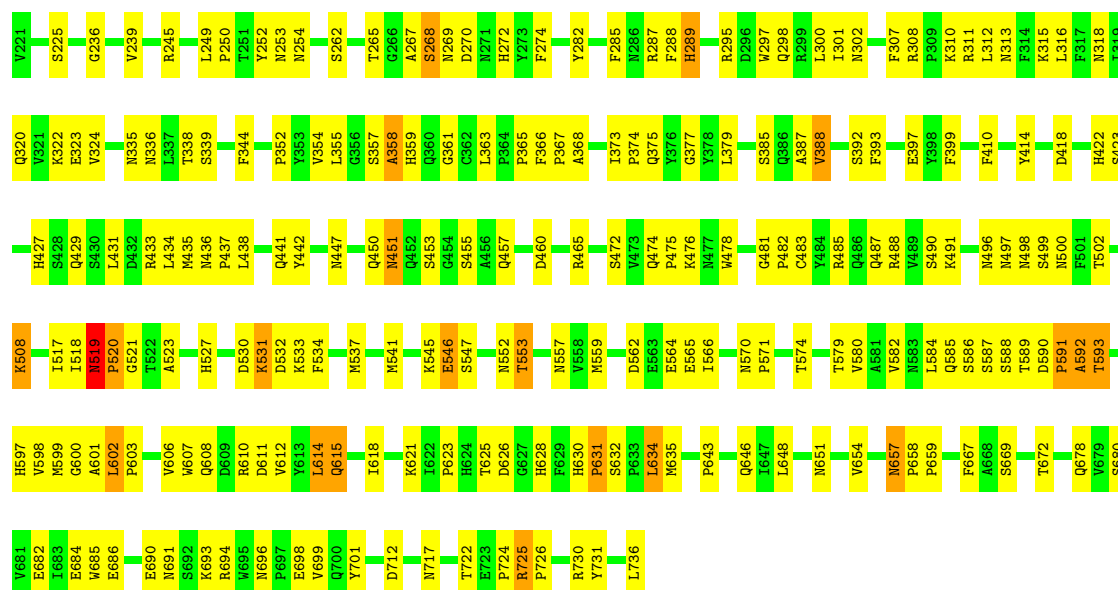
• Molecule 1: Capsid protein VP1

Chain O:



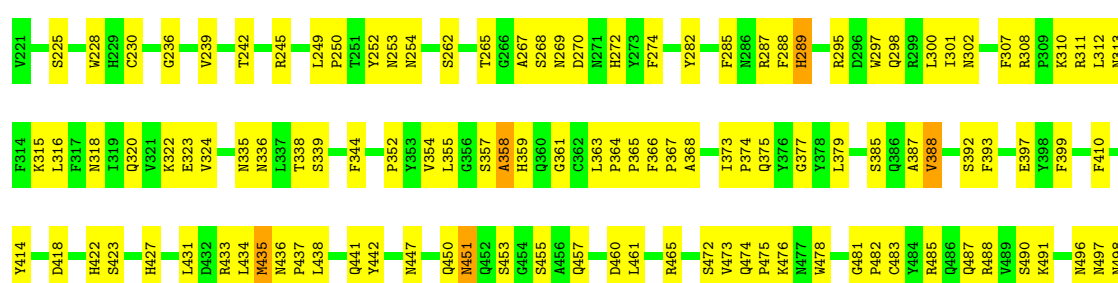
• Molecule 1: Capsid protein VP1

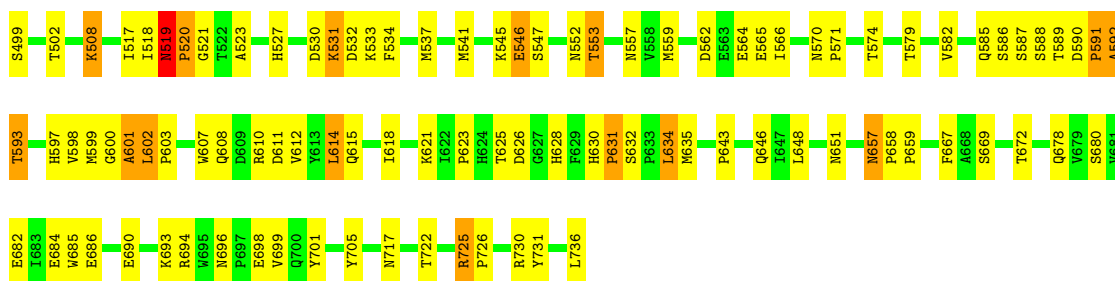
Chain P:



• Molecule 1: Capsid protein VP1

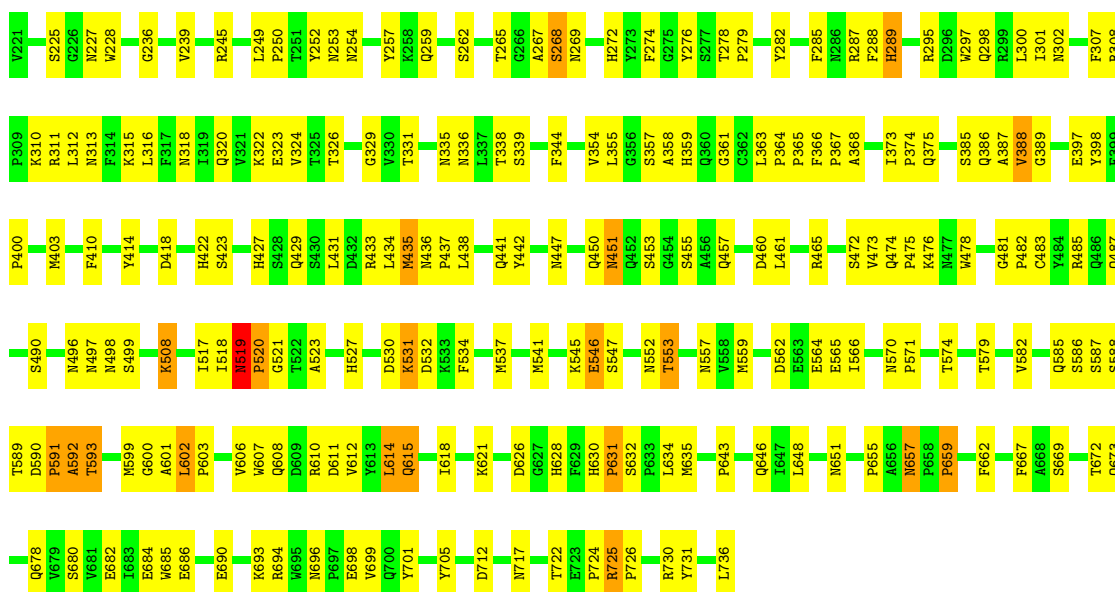
Chain Q:





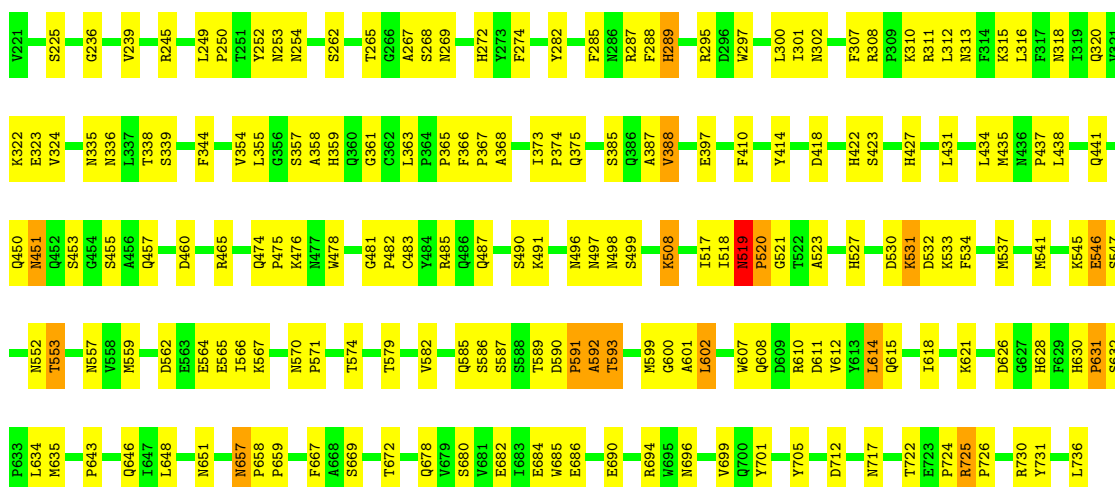
• Molecule 1: Capsid protein VP1

Chain R:



• Molecule 1: Capsid protein VP1

Chain S:



• Molecule 1: Capsid protein VP1

Chain T:

N696	N610	N622	H422	I319	V221
V699	R610	A523	S423	Q320	S225
Q700	D611	H527	H427	V321	E323
Y701	V612	D530	L431	K322	V228
Y705	L613	K531	L434	V324	Q236
	Q615	D532	M435	N335	V239
D712	T618	F534	N436	L337	R245
N717	K621	M537	P437	T338	L249
T722	L622	M541	L438	S339	P250
E723	P623	K545	Q441	F344	T251
P724	T625	E546	Q450	P352	Y252
R725	D626	S547	N451	Y353	N253
P726	G627	S547	Q452	V354	N254
R730	H628	N552	S453	L355	S262
Y731	F629	T553	G454	G356	T265
L736	H630	S553	A456	S357	A267
	P631	N557	Q457	H359	S268
	S632	V558	D460	Q360	N269
	L634	M559	R465	G361	D270
	M635	D562	Q474	L363	N271
	P643	E563	P475	P364	H272
	Q646	E564	K476	P366	Y273
	L648	I566	N477	P367	F274
	N651	N570	W478	A368	Y282
	V654	P571	G481	I373	F285
	N657	T574	P482	P374	N286
	P658	T579	C483	Q375	R287
	P659	V582	Y484	G376	F288
	F667	Q585	R485	G377	H289
	A668	S586	Q486	I378	R295
	S669	S587	Q487	L379	D296
	T672	S588	S490	S385	W297
	D678	T589	K491	A387	L300
	V679	D590	N496	V388	I301
	S680	P591	N497	S392	N302
	V681	A592	N498	F393	F307
	E682	T593	S499	E397	R308
	T683	H597	N500	Y398	P309
	E684	V598	T502	F399	K310
	M685	M599	K508	P400	R311
	E686	G600	L517	F410	L312
	E690	A601	T518	Y414	N313
	R694	L602	N519	Y418	F314
	W695	W607	P520	D418	K315
		Q608	G521		L316
					F317
					N318

4 Data and refinement statistics

Property	Value	Source
Space group	H 3	Depositor
Cell constants a, b, c, α , β , γ	258.36Å 258.36Å 612.97Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	48.67 – 3.02 48.67 – 3.02	Depositor EDS
% Data completeness (in resolution range)	23.0 (48.67-3.02) 23.0 (48.67-3.02)	Depositor EDS
R_{merge}	0.08	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.04 (at 3.01Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.7.1_743)	Depositor
R, R_{free}	0.273 , 0.286 0.241 , 0.257	Depositor DCC
R_{free} test set	977 reflections (1.42%)	DCC
Wilson B-factor (Å ²)	64.2	Xtriage
Anisotropy	0.841	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.30 , 55.5	EDS
Estimated twinning fraction	0.078 for -h,1/3*h-1/3*k-1/3*l,-4/3*h-8/3*k+1/3*l 0.060 for -1/3*h+1/3*k+1/3*l,-k,8/3*h+4/3*k+1/3*l 0.048 for -2/3*h-1/3*k-1/3*l,-1/3*h-2/3*k+1/3*l,-4/3*h+4/3*k+1/3*l 0.049 for 1/3*h+2/3*k-1/3*l,-k,-8/3*h-4/3*k-1/3*l 0.059 for -1/3*h-2/3*k+1/3*l,-2/3*h-1/3*k-1/3*l,4/3*h-4/3*k-1/3*l 0.057 for -h,2/3*h+1/3*k+1/3*l,4/3*h+8/3*k-1/3*l 0.136 for h,-h-k,-l	Xtriage
L-test for twinning	$\langle L \rangle = 0.43$, $\langle L^2 \rangle = 0.25$	Xtriage
Outliers	0 of 68828 reflections	Xtriage
F_o, F_c correlation	0.87	EDS
Total number of atoms	82000	wwPDB-VP
Average B, all atoms (Å ²)	89.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 10.62% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.21	0/4226	0.37	0/5762
1	B	0.21	0/4226	0.37	0/5762
1	C	0.21	0/4226	0.37	0/5762
1	D	0.22	0/4226	0.37	0/5762
1	E	0.21	0/4226	0.37	0/5762
1	F	0.21	0/4226	0.37	0/5762
1	G	0.21	0/4226	0.37	0/5762
1	H	0.22	0/4226	0.37	0/5762
1	I	0.22	0/4226	0.37	0/5762
1	J	0.22	0/4226	0.37	0/5762
1	K	0.21	0/4226	0.37	0/5762
1	L	0.22	0/4226	0.37	0/5762
1	M	0.22	0/4226	0.37	0/5762
1	N	0.21	0/4226	0.37	0/5762
1	O	0.21	0/4226	0.37	0/5762
1	P	0.22	0/4226	0.37	0/5762
1	Q	0.21	0/4226	0.37	0/5762
1	R	0.22	0/4226	0.37	0/5762
1	S	0.21	0/4226	0.37	0/5762
1	T	0.21	0/4226	0.37	0/5762
All	All	0.21	0/84520	0.37	0/115240

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 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 hydrogens added by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit,

and the number in parentheses is this value normalized per 1000 atoms of the molecule in the chain. The Symm-Clashes column gives symmetry related clashes, in the same way as for the Clashes column.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	4100	0	3881	137	1
1	B	4100	0	3881	167	2
1	C	4100	0	3881	133	2
1	D	4100	0	3881	170	1
1	E	4100	0	3881	173	1
1	F	4100	0	3881	213	0
1	G	4100	0	3881	174	1
1	H	4100	0	3881	208	0
1	I	4100	0	3881	207	1
1	J	4100	0	3881	194	2
1	K	4100	0	3881	166	1
1	L	4100	0	3881	167	2
1	M	4100	0	3881	137	5
1	N	4100	0	3881	204	0
1	O	4100	0	3881	168	2
1	P	4100	0	3881	204	0
1	Q	4100	0	3881	203	0
1	R	4100	0	3881	197	3
1	S	4100	0	3881	134	2
1	T	4100	0	3881	170	1
All	All	82000	0	77620	2997	15

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including hydrogens) of the entry. The overall clashscore for this entry is 19.

All (2997) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:658:PRO:HG2	1:L:250:PRO:HB3	1.19	1.14
1:J:705:TYR:O	1:R:388:VAL:HG12	1.59	1.03
1:J:397:GLU:HB2	1:L:367:PRO:HB2	1.45	0.98
1:D:359:HIS:HE1	1:E:436:ASN:H	1.03	0.96
1:B:359:HIS:HE1	1:G:436:ASN:H	1.01	0.95
1:J:338:THR:O	1:L:320:GLN:NE2	1.99	0.95
1:J:707:LYS:HG2	1:R:386:GLN:HG2	1.49	0.95
1:K:359:HIS:HE1	1:R:436:ASN:H	0.99	0.95
1:H:436:ASN:H	1:N:359:HIS:HE1	1.02	0.94
1:I:436:ASN:H	1:P:359:HIS:HE1	1.04	0.94
1:O:436:ASN:H	1:T:359:HIS:HE1	1.03	0.94
1:J:658:PRO:HG2	1:L:250:PRO:CB	1.97	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:436:ASN:H	1:I:359:HIS:HE1	1.01	0.93
1:N:436:ASN:H	1:Q:359:HIS:HE1	1.00	0.93
1:H:359:HIS:HE1	1:Q:436:ASN:H	1.05	0.93
1:I:658:PRO:HG2	1:R:250:PRO:HB3	1.49	0.92
1:F:359:HIS:HE1	1:P:436:ASN:H	1.00	0.89
1:E:298:GLN:HE22	1:I:698:GLU:H	1.20	0.88
1:E:698:GLU:H	1:I:298:GLN:HE22	1.21	0.88
1:J:705:TYR:HA	1:R:389:GLY:HA3	1.56	0.88
1:F:298:GLN:HE22	1:R:698:GLU:H	1.21	0.87
1:O:698:GLU:H	1:Q:298:GLN:HE22	1.21	0.87
1:H:658:PRO:HG2	1:O:250:PRO:HB3	1.55	0.87
1:J:662:PHE:HE2	1:L:360:GLN:HG3	1.38	0.87
1:A:658:PRO:HG2	1:M:250:PRO:HB3	1.57	0.86
1:E:250:PRO:HB3	1:P:658:PRO:HG2	1.57	0.86
1:O:519:ASN:HB2	1:O:520:PRO:HD2	1.58	0.86
1:F:519:ASN:HB2	1:F:520:PRO:HD2	1.58	0.86
1:J:519:ASN:HB2	1:J:520:PRO:HD2	1.58	0.86
1:O:298:GLN:HE22	1:Q:698:GLU:H	1.22	0.86
1:A:519:ASN:HB2	1:A:520:PRO:HD2	1.58	0.85
1:I:519:ASN:HB2	1:I:520:PRO:HD2	1.58	0.85
1:K:519:ASN:HB2	1:K:520:PRO:HD2	1.59	0.85
1:D:519:ASN:HB2	1:D:520:PRO:HD2	1.58	0.85
1:E:519:ASN:HB2	1:E:520:PRO:HD2	1.58	0.85
1:C:519:ASN:HB2	1:C:520:PRO:HD2	1.58	0.85
1:G:698:GLU:H	1:N:298:GLN:HE22	1.25	0.84
1:Q:519:ASN:HB2	1:Q:520:PRO:HD2	1.58	0.84
1:F:250:PRO:HB3	1:K:658:PRO:HG2	1.57	0.84
1:H:519:ASN:HB2	1:H:520:PRO:HD2	1.58	0.84
1:T:519:ASN:HB2	1:T:520:PRO:HD2	1.58	0.84
1:L:519:ASN:HB2	1:L:520:PRO:HD2	1.58	0.84
1:M:519:ASN:HB2	1:M:520:PRO:HD2	1.59	0.84
1:B:250:PRO:HB3	1:C:658:PRO:HG2	1.59	0.84
1:M:658:PRO:HG2	1:T:250:PRO:HB3	1.60	0.83
1:F:359:HIS:CE1	1:P:436:ASN:H	1.93	0.83
1:G:519:ASN:HB2	1:G:520:PRO:HD2	1.58	0.83
1:D:250:PRO:HB3	1:L:658:PRO:HG2	1.59	0.83
1:F:698:GLU:H	1:R:298:GLN:HE22	1.20	0.83
1:B:658:PRO:HG2	1:N:250:PRO:HB3	1.59	0.83
1:N:519:ASN:HB2	1:N:520:PRO:HD2	1.59	0.83
1:G:250:PRO:HB3	1:Q:658:PRO:HG2	1.59	0.83
1:F:658:PRO:HG2	1:H:250:PRO:HB3	1.59	0.83
1:J:707:LYS:HG2	1:R:386:GLN:CG	2.08	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:519:ASN:HB2	1:B:520:PRO:HD2	1.59	0.82
1:S:519:ASN:HB2	1:S:520:PRO:HD2	1.58	0.82
1:P:519:ASN:HB2	1:P:520:PRO:HD2	1.58	0.82
1:J:662:PHE:CE2	1:L:360:GLN:HG3	2.15	0.82
1:R:519:ASN:HB2	1:R:520:PRO:HD2	1.58	0.82
1:H:698:GLU:H	1:P:298:GLN:HE22	1.26	0.82
1:D:658:PRO:HG2	1:I:250:PRO:HB3	1.61	0.82
1:H:298:GLN:HE22	1:P:698:GLU:H	1.24	0.82
1:J:320:GLN:NE2	1:R:338:THR:O	2.13	0.81
1:B:359:HIS:CE1	1:G:436:ASN:H	1.94	0.81
1:Q:250:PRO:HB3	1:T:658:PRO:HG2	1.61	0.81
1:G:298:GLN:HE22	1:N:698:GLU:H	1.23	0.81
1:K:250:PRO:HB3	1:S:658:PRO:HG2	1.61	0.81
1:H:436:ASN:H	1:N:359:HIS:CE1	1.95	0.81
1:C:250:PRO:HB3	1:E:658:PRO:HG2	1.62	0.81
1:O:658:PRO:HG2	1:S:250:PRO:HB3	1.61	0.81
1:K:359:HIS:CE1	1:R:436:ASN:H	1.92	0.80
1:N:658:PRO:HG2	1:P:250:PRO:HB3	1.62	0.80
1:A:250:PRO:HB3	1:G:658:PRO:HG2	1.63	0.80
1:J:655:PRO:HG3	1:L:370:VAL:HG11	1.63	0.80
1:F:436:ASN:H	1:I:359:HIS:CE1	1.94	0.80
1:K:393:PHE:H	1:R:696:ASN:ND2	1.79	0.79
1:N:436:ASN:H	1:Q:359:HIS:CE1	1.93	0.79
1:J:402:GLN:HG3	1:L:227:ASN:OD1	1.82	0.78
1:C:310:LYS:NZ	1:C:686:GLU:OE2	2.16	0.78
1:F:393:PHE:H	1:P:696:ASN:ND2	1.82	0.78
1:N:696:ASN:ND2	1:Q:393:PHE:H	1.83	0.77
1:B:393:PHE:H	1:G:696:ASN:ND2	1.83	0.76
1:J:671:ILE:HD11	1:L:674:TYR:OH	1.86	0.76
1:H:601:ALA:HB2	1:Q:601:ALA:HB2	1.68	0.76
1:F:497:ASN:ND2	1:P:588:SER:O	2.18	0.76
1:J:397:GLU:CB	1:L:367:PRO:HB2	2.16	0.76
1:F:310:LYS:NZ	1:F:686:GLU:OE2	2.17	0.76
1:O:310:LYS:NZ	1:O:686:GLU:OE2	2.17	0.75
1:F:696:ASN:ND2	1:I:393:PHE:H	1.84	0.75
1:E:310:LYS:NZ	1:E:686:GLU:OE2	2.17	0.75
1:D:601:ALA:HB2	1:E:601:ALA:HB2	1.68	0.75
1:P:310:LYS:NZ	1:P:686:GLU:OE2	2.17	0.75
1:O:436:ASN:H	1:T:359:HIS:CE1	1.96	0.75
1:H:696:ASN:ND2	1:N:393:PHE:H	1.83	0.75
1:B:310:LYS:NZ	1:B:686:GLU:OE2	2.18	0.75
1:D:359:HIS:CE1	1:E:436:ASN:H	1.96	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:310:LYS:NZ	1:L:686:GLU:OE2	2.16	0.74
1:N:588:SER:O	1:Q:497:ASN:ND2	2.20	0.74
1:K:359:HIS:HE1	1:R:436:ASN:N	1.82	0.74
1:T:310:LYS:NZ	1:T:686:GLU:OE2	2.17	0.74
1:K:601:ALA:HB2	1:R:601:ALA:HB2	1.70	0.74
1:F:379:LEU:HD13	1:P:433:ARG:HG3	1.70	0.74
1:O:696:ASN:ND2	1:T:393:PHE:H	1.85	0.74
1:S:287:ARG:HH21	1:S:289:HIS:CE1	2.06	0.73
1:F:588:SER:O	1:I:497:ASN:ND2	2.20	0.73
1:C:287:ARG:HH21	1:C:289:HIS:CE1	2.06	0.73
1:O:601:ALA:HB2	1:T:601:ALA:HB2	1.69	0.73
1:D:287:ARG:HH21	1:D:289:HIS:CE1	2.07	0.73
1:Q:287:ARG:HH21	1:Q:289:HIS:CE1	2.07	0.73
1:M:310:LYS:NZ	1:M:686:GLU:OE2	2.18	0.73
1:D:310:LYS:NZ	1:D:686:GLU:OE2	2.18	0.73
1:H:287:ARG:HH21	1:H:289:HIS:CE1	2.07	0.73
1:M:287:ARG:HH21	1:M:289:HIS:CE1	2.07	0.73
1:F:287:ARG:HH21	1:F:289:HIS:CE1	2.07	0.73
1:G:287:ARG:HH21	1:G:289:HIS:CE1	2.07	0.72
1:S:310:LYS:NZ	1:S:686:GLU:OE2	2.17	0.72
1:I:287:ARG:HH21	1:I:289:HIS:CE1	2.07	0.72
1:H:310:LYS:NZ	1:H:686:GLU:OE2	2.18	0.72
1:E:287:ARG:HH21	1:E:289:HIS:CE1	2.06	0.72
1:T:287:ARG:HH21	1:T:289:HIS:CE1	2.08	0.72
1:H:393:PHE:H	1:Q:696:ASN:ND2	1.88	0.72
1:P:287:ARG:HH21	1:P:289:HIS:CE1	2.08	0.72
1:L:287:ARG:HH21	1:L:289:HIS:CE1	2.08	0.72
1:I:588:SER:O	1:P:497:ASN:ND2	2.23	0.72
1:K:287:ARG:HH21	1:K:289:HIS:CE1	2.08	0.72
1:R:287:ARG:HH21	1:R:289:HIS:CE1	2.07	0.72
1:I:601:ALA:HB2	1:P:601:ALA:HB2	1.72	0.72
1:B:497:ASN:ND2	1:G:588:SER:O	2.22	0.72
1:Q:310:LYS:NZ	1:Q:686:GLU:OE2	2.17	0.72
1:K:310:LYS:NZ	1:K:686:GLU:OE2	2.17	0.72
1:D:393:PHE:H	1:E:696:ASN:ND2	1.86	0.72
1:J:530:ASP:O	1:J:532:ASP:N	2.23	0.72
1:J:287:ARG:HH21	1:J:289:HIS:CE1	2.08	0.72
1:B:287:ARG:HH21	1:B:289:HIS:CE1	2.08	0.72
1:G:310:LYS:NZ	1:G:686:GLU:OE2	2.17	0.72
1:T:530:ASP:O	1:T:532:ASP:N	2.23	0.72
1:H:359:HIS:CE1	1:Q:436:ASN:H	1.98	0.71
1:C:530:ASP:O	1:C:532:ASP:N	2.23	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:530:ASP:O	1:K:532:ASP:N	2.23	0.71
1:L:530:ASP:O	1:L:532:ASP:N	2.23	0.71
1:B:530:ASP:O	1:B:532:ASP:N	2.23	0.71
1:P:530:ASP:O	1:P:532:ASP:N	2.23	0.71
1:R:530:ASP:O	1:R:532:ASP:N	2.23	0.71
1:O:287:ARG:HH21	1:O:289:HIS:CE1	2.07	0.71
1:H:530:ASP:O	1:H:532:ASP:N	2.23	0.71
1:Q:530:ASP:O	1:Q:532:ASP:N	2.24	0.71
1:E:530:ASP:O	1:E:532:ASP:N	2.24	0.71
1:A:287:ARG:HH21	1:A:289:HIS:CE1	2.08	0.71
1:N:287:ARG:HH21	1:N:289:HIS:CE1	2.07	0.71
1:I:354:VAL:H	1:I:646:GLN:NE2	1.89	0.71
1:F:530:ASP:O	1:F:532:ASP:N	2.24	0.71
1:M:530:ASP:O	1:M:532:ASP:N	2.24	0.71
1:N:530:ASP:O	1:N:532:ASP:N	2.24	0.71
1:B:354:VAL:H	1:B:646:GLN:NE2	1.89	0.71
1:J:709:ALA:O	1:R:259:GLN:NE2	2.22	0.71
1:I:530:ASP:O	1:I:532:ASP:N	2.24	0.70
1:R:508:LYS:HB3	1:R:517:ILE:HA	1.73	0.70
1:L:508:LYS:HB3	1:L:517:ILE:HA	1.73	0.70
1:S:530:ASP:O	1:S:532:ASP:N	2.23	0.70
1:G:354:VAL:H	1:G:646:GLN:NE2	1.89	0.70
1:O:508:LYS:HB3	1:O:517:ILE:HA	1.73	0.70
1:A:508:LYS:HB3	1:A:517:ILE:HA	1.73	0.70
1:E:354:VAL:H	1:E:646:GLN:NE2	1.90	0.70
1:I:310:LYS:NZ	1:I:686:GLU:OE2	2.17	0.70
1:L:678:GLN:N	1:L:678:GLN:OE1	2.24	0.70
1:O:588:SER:O	1:T:497:ASN:ND2	2.23	0.70
1:D:354:VAL:H	1:D:646:GLN:NE2	1.89	0.70
1:Q:354:VAL:H	1:Q:646:GLN:NE2	1.89	0.70
1:T:354:VAL:H	1:T:646:GLN:NE2	1.89	0.70
1:N:601:ALA:HB2	1:Q:601:ALA:HB2	1.73	0.70
1:A:310:LYS:NZ	1:A:686:GLU:OE2	2.17	0.70
1:F:582:VAL:HB	1:F:592:ALA:HB1	1.74	0.70
1:M:508:LYS:HB3	1:M:517:ILE:HA	1.74	0.70
1:G:508:LYS:HB3	1:G:517:ILE:HA	1.73	0.70
1:H:508:LYS:HB3	1:H:517:ILE:HA	1.74	0.70
1:B:601:ALA:HB2	1:G:601:ALA:HB2	1.72	0.70
1:D:530:ASP:O	1:D:532:ASP:N	2.23	0.70
1:R:678:GLN:OE1	1:R:678:GLN:N	2.25	0.70
1:N:310:LYS:NZ	1:N:686:GLU:OE2	2.18	0.70
1:O:530:ASP:O	1:O:532:ASP:N	2.24	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:582:VAL:HB	1:G:592:ALA:HB1	1.74	0.70
1:H:433:ARG:HG3	1:N:379:LEU:HD13	1.73	0.70
1:E:508:LYS:HB3	1:E:517:ILE:HA	1.73	0.70
1:C:582:VAL:HB	1:C:592:ALA:HB1	1.74	0.70
1:K:582:VAL:HB	1:K:592:ALA:HB1	1.74	0.70
1:J:707:LYS:CG	1:R:386:GLN:HG2	2.21	0.70
1:S:582:VAL:HB	1:S:592:ALA:HB1	1.73	0.70
1:I:696:ASN:ND2	1:P:393:PHE:H	1.88	0.70
1:A:530:ASP:O	1:A:532:ASP:N	2.24	0.70
1:J:678:GLN:N	1:J:678:GLN:OE1	2.25	0.70
1:S:678:GLN:N	1:S:678:GLN:OE1	2.25	0.70
1:M:678:GLN:OE1	1:M:678:GLN:N	2.24	0.70
1:K:354:VAL:H	1:K:646:GLN:NE2	1.90	0.70
1:A:336:ASN:HD22	1:A:339:SER:HB2	1.57	0.70
1:N:508:LYS:HB3	1:N:517:ILE:HA	1.74	0.70
1:A:354:VAL:H	1:A:646:GLN:NE2	1.89	0.70
1:J:354:VAL:H	1:J:646:GLN:NE2	1.90	0.69
1:B:582:VAL:HB	1:B:592:ALA:HB1	1.74	0.69
1:S:336:ASN:HD22	1:S:339:SER:HB2	1.57	0.69
1:D:508:LYS:HB3	1:D:517:ILE:HA	1.74	0.69
1:C:678:GLN:N	1:C:678:GLN:OE1	2.25	0.69
1:P:354:VAL:H	1:P:646:GLN:NE2	1.90	0.69
1:G:530:ASP:O	1:G:532:ASP:N	2.24	0.69
1:Q:508:LYS:HB3	1:Q:517:ILE:HA	1.74	0.69
1:H:582:VAL:HB	1:H:592:ALA:HB1	1.74	0.69
1:H:678:GLN:OE1	1:H:678:GLN:N	2.26	0.69
1:H:588:SER:O	1:N:497:ASN:ND2	2.23	0.69
1:M:354:VAL:H	1:M:646:GLN:NE2	1.89	0.69
1:I:508:LYS:HB3	1:I:517:ILE:HA	1.74	0.69
1:J:582:VAL:HB	1:J:592:ALA:HB1	1.74	0.69
1:D:678:GLN:N	1:D:678:GLN:OE1	2.25	0.69
1:P:336:ASN:HD22	1:P:339:SER:HB2	1.57	0.69
1:E:336:ASN:HD22	1:E:339:SER:HB2	1.58	0.69
1:T:678:GLN:OE1	1:T:678:GLN:N	2.25	0.69
1:H:497:ASN:ND2	1:Q:588:SER:O	2.26	0.69
1:T:582:VAL:HB	1:T:592:ALA:HB1	1.74	0.69
1:K:678:GLN:OE1	1:K:678:GLN:N	2.26	0.69
1:F:436:ASN:N	1:I:359:HIS:HE1	1.84	0.69
1:N:436:ASN:N	1:Q:359:HIS:HE1	1.83	0.69
1:A:582:VAL:HB	1:A:592:ALA:HB1	1.73	0.69
1:R:310:LYS:NZ	1:R:686:GLU:OE2	2.17	0.69
1:R:582:VAL:HB	1:R:592:ALA:HB1	1.74	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:678:GLN:N	1:G:678:GLN:OE1	2.26	0.69
1:C:354:VAL:H	1:C:646:GLN:NE2	1.90	0.69
1:M:336:ASN:HD22	1:M:339:SER:HB2	1.57	0.69
1:I:436:ASN:H	1:P:359:HIS:CE1	1.97	0.69
1:O:678:GLN:OE1	1:O:678:GLN:N	2.26	0.69
1:N:433:ARG:HG3	1:Q:379:LEU:HD13	1.75	0.69
1:K:508:LYS:HB3	1:K:517:ILE:HA	1.74	0.69
1:H:436:ASN:N	1:N:359:HIS:HE1	1.85	0.69
1:F:601:ALA:HB2	1:I:601:ALA:HB2	1.72	0.69
1:H:354:VAL:H	1:H:646:GLN:NE2	1.90	0.69
1:B:678:GLN:OE1	1:B:678:GLN:N	2.26	0.69
1:D:582:VAL:HB	1:D:592:ALA:HB1	1.74	0.69
1:Q:678:GLN:OE1	1:Q:678:GLN:N	2.25	0.69
1:R:354:VAL:H	1:R:646:GLN:NE2	1.90	0.69
1:S:354:VAL:H	1:S:646:GLN:NE2	1.90	0.69
1:F:433:ARG:HG3	1:I:379:LEU:HD13	1.75	0.69
1:F:336:ASN:HD22	1:F:339:SER:HB2	1.57	0.69
1:N:582:VAL:HB	1:N:592:ALA:HB1	1.74	0.69
1:I:397:GLU:HB2	1:R:367:PRO:HB2	1.75	0.69
1:T:336:ASN:HD22	1:T:339:SER:HB2	1.57	0.69
1:O:354:VAL:H	1:O:646:GLN:NE2	1.90	0.69
1:F:678:GLN:OE1	1:F:678:GLN:N	2.25	0.69
1:F:508:LYS:HB3	1:F:517:ILE:HA	1.74	0.69
1:M:272:HIS:HD1	1:M:385:SER:HG	1.41	0.69
1:Q:582:VAL:HB	1:Q:592:ALA:HB1	1.75	0.69
1:C:336:ASN:HD22	1:C:339:SER:HB2	1.57	0.69
1:D:336:ASN:HD22	1:D:339:SER:HB2	1.58	0.68
1:S:508:LYS:HB3	1:S:517:ILE:HA	1.73	0.68
1:P:508:LYS:HB3	1:P:517:ILE:HA	1.74	0.68
1:I:436:ASN:N	1:P:359:HIS:HE1	1.87	0.68
1:N:678:GLN:N	1:N:678:GLN:OE1	2.25	0.68
1:F:354:VAL:H	1:F:646:GLN:NE2	1.89	0.68
1:O:582:VAL:HB	1:O:592:ALA:HB1	1.74	0.68
1:T:508:LYS:HB3	1:T:517:ILE:HA	1.73	0.68
1:I:678:GLN:OE1	1:I:678:GLN:N	2.26	0.68
1:N:354:VAL:H	1:N:646:GLN:NE2	1.91	0.68
1:J:508:LYS:HB3	1:J:517:ILE:HA	1.73	0.68
1:K:336:ASN:HD22	1:K:339:SER:HB2	1.58	0.68
1:O:436:ASN:N	1:T:359:HIS:HE1	1.87	0.68
1:B:527:HIS:NE2	1:B:532:ASP:OD1	2.27	0.68
1:L:582:VAL:HB	1:L:592:ALA:HB1	1.74	0.68
1:A:678:GLN:OE1	1:A:678:GLN:N	2.26	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:354:VAL:H	1:L:646:GLN:NE2	1.90	0.68
1:O:336:ASN:HD22	1:O:339:SER:HB2	1.58	0.68
1:I:336:ASN:HD22	1:I:339:SER:HB2	1.59	0.68
1:J:652:THR:HG21	1:L:678:GLN:NE2	2.08	0.68
1:M:582:VAL:HB	1:M:592:ALA:HB1	1.74	0.68
1:Q:336:ASN:HD22	1:Q:339:SER:HB2	1.58	0.68
1:E:582:VAL:HB	1:E:592:ALA:HB1	1.74	0.68
1:B:379:LEU:HD13	1:G:433:ARG:HG3	1.75	0.68
1:B:336:ASN:HD22	1:B:339:SER:HB2	1.57	0.68
1:C:508:LYS:HB3	1:C:517:ILE:HA	1.73	0.68
1:K:519:ASN:HB3	1:R:475:PRO:HA	1.74	0.68
1:H:519:ASN:HB3	1:Q:475:PRO:HA	1.75	0.68
1:I:582:VAL:HB	1:I:592:ALA:HB1	1.74	0.68
1:H:601:ALA:HB2	1:N:601:ALA:HB2	1.75	0.68
1:P:678:GLN:OE1	1:P:678:GLN:N	2.26	0.68
1:E:678:GLN:OE1	1:E:678:GLN:N	2.27	0.68
1:D:497:ASN:ND2	1:E:588:SER:O	2.25	0.68
1:L:630:HIS:O	1:L:632:SER:N	2.24	0.68
1:H:359:HIS:HE1	1:Q:436:ASN:N	1.88	0.68
1:N:272:HIS:HD1	1:N:385:SER:HG	1.41	0.68
1:K:497:ASN:ND2	1:R:588:SER:O	2.27	0.68
1:R:519:ASN:HB2	1:R:520:PRO:CD	2.25	0.67
1:N:336:ASN:HD22	1:N:339:SER:HB2	1.58	0.67
1:J:336:ASN:HD22	1:J:339:SER:HB2	1.58	0.67
1:B:508:LYS:HB3	1:B:517:ILE:HA	1.74	0.67
1:R:498:ASN:O	1:R:499:SER:OG	2.13	0.67
1:O:527:HIS:NE2	1:O:532:ASP:OD1	2.28	0.67
1:P:582:VAL:HB	1:P:592:ALA:HB1	1.74	0.67
1:T:272:HIS:HD1	1:T:385:SER:HG	1.40	0.67
1:D:498:ASN:O	1:D:499:SER:OG	2.12	0.67
1:R:336:ASN:HD22	1:R:339:SER:HB2	1.58	0.67
1:H:630:HIS:O	1:H:632:SER:N	2.25	0.67
1:H:336:ASN:HD22	1:H:339:SER:HB2	1.59	0.67
1:J:310:LYS:NZ	1:J:686:GLU:OE2	2.18	0.67
1:B:361:GLY:HA3	1:B:374:PRO:HG3	1.77	0.67
1:I:361:GLY:HA3	1:I:374:PRO:HG3	1.77	0.67
1:F:361:GLY:HA3	1:F:374:PRO:HG3	1.77	0.67
1:D:519:ASN:HB2	1:D:520:PRO:CD	2.25	0.67
1:G:336:ASN:HD22	1:G:339:SER:HB2	1.57	0.67
1:F:630:HIS:O	1:F:632:SER:N	2.24	0.67
1:O:519:ASN:HB2	1:O:520:PRO:CD	2.25	0.67
1:I:519:ASN:HB2	1:I:520:PRO:CD	2.25	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:272:HIS:HD1	1:D:385:SER:HG	1.42	0.67
1:L:336:ASN:HD22	1:L:339:SER:HB2	1.58	0.67
1:P:361:GLY:HA3	1:P:374:PRO:HG3	1.77	0.67
1:A:630:HIS:O	1:A:632:SER:N	2.25	0.67
1:N:630:HIS:O	1:N:632:SER:N	2.25	0.67
1:O:475:PRO:HA	1:T:519:ASN:HB3	1.77	0.67
1:C:272:HIS:HD1	1:C:385:SER:HG	1.41	0.67
1:C:519:ASN:HB2	1:C:520:PRO:CD	2.25	0.67
1:H:361:GLY:HA3	1:H:374:PRO:HG3	1.77	0.67
1:A:519:ASN:HB2	1:A:520:PRO:CD	2.25	0.66
1:T:361:GLY:HA3	1:T:374:PRO:HG3	1.77	0.66
1:N:361:GLY:HA3	1:N:374:PRO:HG3	1.77	0.66
1:L:361:GLY:HA3	1:L:374:PRO:HG3	1.77	0.66
1:I:433:ARG:HG3	1:P:379:LEU:HD13	1.77	0.66
1:N:397:GLU:HG3	1:P:368:ALA:HB2	1.77	0.66
1:G:361:GLY:HA3	1:G:374:PRO:HG3	1.77	0.66
1:J:519:ASN:HB2	1:J:520:PRO:CD	2.24	0.66
1:J:361:GLY:HA3	1:J:374:PRO:HG3	1.76	0.66
1:F:359:HIS:HE1	1:P:436:ASN:N	1.83	0.66
1:B:519:ASN:HB2	1:B:520:PRO:CD	2.25	0.66
1:K:527:HIS:NE2	1:K:532:ASP:OD1	2.29	0.66
1:M:519:ASN:HB2	1:M:520:PRO:CD	2.25	0.66
1:J:527:HIS:NE2	1:J:532:ASP:OD1	2.29	0.66
1:K:379:LEU:HD13	1:R:433:ARG:HG3	1.76	0.66
1:K:361:GLY:HA3	1:K:374:PRO:HG3	1.77	0.66
1:G:519:ASN:HB2	1:G:520:PRO:CD	2.25	0.66
1:O:361:GLY:HA3	1:O:374:PRO:HG3	1.76	0.66
1:Q:361:GLY:HA3	1:Q:374:PRO:HG3	1.77	0.66
1:F:399:PHE:CZ	1:P:693:LYS:HD3	2.31	0.66
1:H:519:ASN:HB2	1:H:520:PRO:CD	2.25	0.66
1:F:601:ALA:HB2	1:P:601:ALA:HB2	1.77	0.66
1:S:361:GLY:HA3	1:S:374:PRO:HG3	1.77	0.66
1:F:519:ASN:HB2	1:F:520:PRO:CD	2.25	0.66
1:E:519:ASN:HB2	1:E:520:PRO:CD	2.25	0.66
1:D:361:GLY:HA3	1:D:374:PRO:HG3	1.77	0.66
1:T:225:SER:HB3	1:T:318:ASN:H	1.61	0.66
1:J:296:ASP:OD2	1:R:398:TYR:OH	2.13	0.66
1:H:358:ALA:HB1	1:Q:442:TYR:CZ	2.30	0.66
1:M:527:HIS:NE2	1:M:532:ASP:OD1	2.29	0.66
1:I:397:GLU:HG3	1:R:368:ALA:HB2	1.77	0.66
1:M:361:GLY:HA3	1:M:374:PRO:HG3	1.77	0.66
1:Q:527:HIS:NE2	1:Q:532:ASP:OD1	2.29	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:361:GLY:HA3	1:E:374:PRO:HG3	1.77	0.66
1:R:361:GLY:HA3	1:R:374:PRO:HG3	1.77	0.66
1:T:519:ASN:HB2	1:T:520:PRO:CD	2.25	0.65
1:N:519:ASN:HB2	1:N:520:PRO:CD	2.26	0.65
1:N:527:HIS:NE2	1:N:532:ASP:OD1	2.29	0.65
1:K:399:PHE:CZ	1:R:693:LYS:HD3	2.31	0.65
1:S:630:HIS:O	1:S:632:SER:N	2.25	0.65
1:P:519:ASN:HB2	1:P:520:PRO:CD	2.25	0.65
1:F:527:HIS:NE2	1:F:532:ASP:OD1	2.30	0.65
1:B:253:ASN:ND2	1:B:375:GLN:OE1	2.29	0.65
1:B:225:SER:HB3	1:B:318:ASN:H	1.62	0.65
1:C:253:ASN:ND2	1:C:375:GLN:OE1	2.30	0.65
1:T:527:HIS:NE2	1:T:532:ASP:OD1	2.29	0.65
1:S:527:HIS:NE2	1:S:532:ASP:OD1	2.29	0.65
1:G:253:ASN:ND2	1:G:375:GLN:OE1	2.30	0.65
1:M:630:HIS:O	1:M:632:SER:N	2.25	0.65
1:B:359:HIS:HE1	1:G:436:ASN:N	1.84	0.65
1:L:527:HIS:NE2	1:L:532:ASP:OD1	2.30	0.65
1:P:527:HIS:NE2	1:P:532:ASP:OD1	2.30	0.65
1:N:423:SER:OG	1:Q:626:ASP:OD1	2.14	0.65
1:O:498:ASN:O	1:O:499:SER:OG	2.13	0.65
1:R:253:ASN:ND2	1:R:375:GLN:OE1	2.30	0.65
1:D:519:ASN:HB3	1:E:475:PRO:HA	1.78	0.65
1:G:527:HIS:NE2	1:G:532:ASP:OD1	2.29	0.65
1:R:527:HIS:NE2	1:R:532:ASP:OD1	2.29	0.65
1:D:527:HIS:NE2	1:D:532:ASP:OD1	2.30	0.65
1:C:361:GLY:HA3	1:C:374:PRO:HG3	1.77	0.65
1:A:553:THR:HG23	1:A:557:ASN:HB2	1.79	0.65
1:L:519:ASN:HB2	1:L:520:PRO:CD	2.25	0.65
1:G:487:GLN:HB3	1:G:537:MET:HE3	1.79	0.65
1:N:253:ASN:ND2	1:N:375:GLN:OE1	2.30	0.65
1:A:361:GLY:HA3	1:A:374:PRO:HG3	1.77	0.65
1:D:359:HIS:HE1	1:E:436:ASN:N	1.86	0.65
1:H:498:ASN:O	1:H:499:SER:OG	2.13	0.65
1:K:225:SER:HB3	1:K:318:ASN:H	1.61	0.65
1:D:269:ASN:HA	1:D:272:HIS:CD2	2.32	0.65
1:H:253:ASN:ND2	1:H:375:GLN:OE1	2.29	0.65
1:E:253:ASN:ND2	1:E:375:GLN:OE1	2.30	0.65
1:P:253:ASN:ND2	1:P:375:GLN:OE1	2.30	0.65
1:Q:630:HIS:O	1:Q:632:SER:N	2.25	0.65
1:F:253:ASN:ND2	1:F:375:GLN:OE1	2.30	0.65
1:J:487:GLN:HB3	1:J:537:MET:HE3	1.79	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:Q:269:ASN:HA	1:Q:272:HIS:CD2	2.32	0.65
1:I:269:ASN:HA	1:I:272:HIS:CD2	2.32	0.65
1:C:269:ASN:HA	1:C:272:HIS:CD2	2.32	0.65
1:O:442:TYR:CZ	1:T:358:ALA:HB1	2.31	0.65
1:H:225:SER:HB3	1:H:318:ASN:H	1.61	0.65
1:Q:253:ASN:ND2	1:Q:375:GLN:OE1	2.30	0.65
1:A:253:ASN:ND2	1:A:375:GLN:OE1	2.30	0.65
1:T:253:ASN:ND2	1:T:375:GLN:OE1	2.30	0.65
1:G:590:ASP:HB2	1:G:591:PRO:HA	1.79	0.65
1:M:553:THR:HG23	1:M:557:ASN:HB2	1.79	0.65
1:T:630:HIS:O	1:T:632:SER:N	2.25	0.65
1:P:498:ASN:O	1:P:499:SER:OG	2.12	0.65
1:I:527:HIS:NE2	1:I:532:ASP:OD1	2.30	0.65
1:I:225:SER:HB3	1:I:318:ASN:H	1.62	0.65
1:F:590:ASP:HB2	1:F:591:PRO:HA	1.79	0.65
1:J:553:THR:HG23	1:J:557:ASN:HB2	1.79	0.65
1:P:225:SER:HB3	1:P:318:ASN:H	1.62	0.65
1:E:498:ASN:O	1:E:499:SER:OG	2.13	0.65
1:S:225:SER:HB3	1:S:318:ASN:H	1.62	0.65
1:K:519:ASN:HB2	1:K:520:PRO:CD	2.25	0.64
1:N:475:PRO:HA	1:Q:519:ASN:HB3	1.79	0.64
1:D:225:SER:HB3	1:D:318:ASN:H	1.61	0.64
1:Q:519:ASN:HB2	1:Q:520:PRO:CD	2.25	0.64
1:F:269:ASN:HA	1:F:272:HIS:CD2	2.32	0.64
1:C:527:HIS:NE2	1:C:532:ASP:OD1	2.29	0.64
1:H:527:HIS:NE2	1:H:532:ASP:OD1	2.29	0.64
1:T:498:ASN:O	1:T:499:SER:OG	2.13	0.64
1:F:225:SER:HB3	1:F:318:ASN:H	1.62	0.64
1:P:269:ASN:HA	1:P:272:HIS:CD2	2.32	0.64
1:O:272:HIS:HD1	1:O:385:SER:HG	1.45	0.64
1:N:590:ASP:HB2	1:N:591:PRO:HA	1.79	0.64
1:L:553:THR:HG23	1:L:557:ASN:HB2	1.79	0.64
1:D:590:ASP:HB2	1:D:591:PRO:HA	1.80	0.64
1:J:225:SER:HB3	1:J:318:ASN:H	1.62	0.64
1:M:225:SER:HB3	1:M:318:ASN:H	1.62	0.64
1:P:487:GLN:HB3	1:P:537:MET:HE3	1.80	0.64
1:R:553:THR:HG23	1:R:557:ASN:HB2	1.78	0.64
1:A:527:HIS:NE2	1:A:532:ASP:OD1	2.31	0.64
1:J:269:ASN:HA	1:J:272:HIS:CD2	2.33	0.64
1:O:553:THR:HG23	1:O:557:ASN:HB2	1.79	0.64
1:K:487:GLN:HB3	1:K:537:MET:HE3	1.79	0.64
1:D:553:THR:HG23	1:D:557:ASN:HB2	1.79	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:715:VAL:HG21	1:R:257:TYR:O	1.98	0.64
1:D:253:ASN:ND2	1:D:375:GLN:OE1	2.30	0.64
1:R:269:ASN:HA	1:R:272:HIS:CD2	2.32	0.64
1:S:253:ASN:ND2	1:S:375:GLN:OE1	2.30	0.64
1:O:253:ASN:ND2	1:O:375:GLN:OE1	2.30	0.64
1:J:707:LYS:HD2	1:R:386:GLN:HB3	1.78	0.64
1:L:225:SER:HB3	1:L:318:ASN:H	1.62	0.64
1:M:269:ASN:HA	1:M:272:HIS:CD2	2.33	0.64
1:E:269:ASN:HA	1:E:272:HIS:CD2	2.32	0.64
1:K:630:HIS:O	1:K:632:SER:N	2.25	0.64
1:J:659:PRO:HD2	1:L:372:MET:SD	2.37	0.64
1:C:225:SER:HB3	1:C:318:ASN:H	1.62	0.64
1:K:590:ASP:HB2	1:K:591:PRO:HA	1.80	0.64
1:I:253:ASN:ND2	1:I:375:GLN:OE1	2.29	0.64
1:N:269:ASN:HA	1:N:272:HIS:CD2	2.32	0.64
1:T:269:ASN:HA	1:T:272:HIS:CD2	2.32	0.64
1:D:630:HIS:O	1:D:632:SER:N	2.25	0.64
1:P:553:THR:HG23	1:P:557:ASN:HB2	1.79	0.64
1:N:487:GLN:HB3	1:N:537:MET:HE3	1.79	0.64
1:L:269:ASN:HA	1:L:272:HIS:CD2	2.32	0.64
1:H:269:ASN:HA	1:H:272:HIS:CD2	2.32	0.64
1:B:519:ASN:HB3	1:G:475:PRO:HA	1.79	0.64
1:E:527:HIS:NE2	1:E:532:ASP:OD1	2.29	0.64
1:P:336:ASN:ND2	1:P:339:SER:HB2	2.13	0.64
1:T:590:ASP:HB2	1:T:591:PRO:HA	1.80	0.64
1:B:269:ASN:HA	1:B:272:HIS:CD2	2.32	0.64
1:I:553:THR:HG23	1:I:557:ASN:HB2	1.79	0.64
1:K:269:ASN:HA	1:K:272:HIS:CD2	2.32	0.64
1:F:367:PRO:HB2	1:K:397:GLU:HB2	1.80	0.64
1:M:487:GLN:HB3	1:M:537:MET:HE3	1.80	0.64
1:Q:487:GLN:HB3	1:Q:537:MET:HE3	1.80	0.64
1:F:553:THR:HG23	1:F:557:ASN:HB2	1.79	0.64
1:T:487:GLN:HB3	1:T:537:MET:HE3	1.80	0.64
1:F:487:GLN:HB3	1:F:537:MET:HE3	1.80	0.64
1:R:590:ASP:HB2	1:R:591:PRO:HA	1.80	0.64
1:A:225:SER:HB3	1:A:318:ASN:H	1.62	0.64
1:K:553:THR:HG23	1:K:557:ASN:HB2	1.80	0.64
1:H:487:GLN:HB3	1:H:537:MET:HE3	1.80	0.64
1:S:519:ASN:HB2	1:S:520:PRO:CD	2.25	0.64
1:I:498:ASN:O	1:I:499:SER:OG	2.13	0.64
1:R:225:SER:HB3	1:R:318:ASN:H	1.62	0.64
1:O:487:GLN:HB3	1:O:537:MET:HE3	1.80	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:553:THR:HG23	1:N:557:ASN:HB2	1.79	0.64
1:C:487:GLN:HB3	1:C:537:MET:HE3	1.79	0.64
1:S:498:ASN:O	1:S:499:SER:OG	2.13	0.64
1:M:590:ASP:HB2	1:M:591:PRO:HA	1.80	0.64
1:C:590:ASP:HB2	1:C:591:PRO:HA	1.80	0.64
1:G:553:THR:HG23	1:G:557:ASN:HB2	1.79	0.64
1:F:272:HIS:HD1	1:F:385:SER:HG	1.45	0.64
1:H:336:ASN:ND2	1:H:339:SER:HB2	2.13	0.64
1:O:269:ASN:HA	1:O:272:HIS:CD2	2.32	0.64
1:J:253:ASN:ND2	1:J:375:GLN:OE1	2.31	0.64
1:H:590:ASP:HB2	1:H:591:PRO:HA	1.80	0.64
1:B:590:ASP:HB2	1:B:591:PRO:HA	1.80	0.64
1:E:553:THR:HG23	1:E:557:ASN:HB2	1.79	0.64
1:I:590:ASP:HB2	1:I:591:PRO:HA	1.80	0.64
1:K:253:ASN:ND2	1:K:375:GLN:OE1	2.31	0.64
1:S:336:ASN:ND2	1:S:339:SER:HB2	2.12	0.63
1:E:336:ASN:ND2	1:E:339:SER:HB2	2.13	0.63
1:B:336:ASN:ND2	1:B:339:SER:HB2	2.13	0.63
1:K:358:ALA:HB1	1:R:442:TYR:CZ	2.33	0.63
1:H:379:LEU:HD13	1:Q:433:ARG:HG3	1.80	0.63
1:E:630:HIS:O	1:E:632:SER:N	2.25	0.63
1:M:253:ASN:ND2	1:M:375:GLN:OE1	2.31	0.63
1:N:338:THR:O	1:P:320:GLN:NE2	2.30	0.63
1:H:397:GLU:HB2	1:O:367:PRO:HB2	1.80	0.63
1:R:487:GLN:HB3	1:R:537:MET:HE3	1.80	0.63
1:L:487:GLN:HB3	1:L:537:MET:HE3	1.80	0.63
1:F:475:PRO:HA	1:I:519:ASN:HB3	1.79	0.63
1:S:590:ASP:HB2	1:S:591:PRO:HA	1.80	0.63
1:G:269:ASN:HA	1:G:272:HIS:CD2	2.32	0.63
1:G:225:SER:HB3	1:G:318:ASN:H	1.62	0.63
1:S:269:ASN:HA	1:S:272:HIS:CD2	2.32	0.63
1:A:590:ASP:HB2	1:A:591:PRO:HA	1.80	0.63
1:O:336:ASN:ND2	1:O:339:SER:HB2	2.13	0.63
1:I:442:TYR:CZ	1:P:358:ALA:HB1	2.34	0.63
1:E:487:GLN:HB3	1:E:537:MET:HE3	1.80	0.63
1:C:553:THR:HG23	1:C:557:ASN:HB2	1.79	0.63
1:D:487:GLN:HB3	1:D:537:MET:HE3	1.80	0.63
1:O:225:SER:HB3	1:O:318:ASN:H	1.62	0.63
1:F:336:ASN:ND2	1:F:339:SER:HB2	2.12	0.63
1:F:423:SER:OG	1:I:626:ASP:OD1	2.15	0.63
1:E:367:PRO:HB2	1:P:397:GLU:HB2	1.80	0.63
1:L:253:ASN:ND2	1:L:375:GLN:OE1	2.31	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:630:HIS:O	1:G:632:SER:N	2.25	0.63
1:J:401:SER:OG	1:L:228:TRP:HB3	1.98	0.63
1:P:272:HIS:HD1	1:P:385:SER:HG	1.43	0.63
1:S:487:GLN:HB3	1:S:537:MET:HE3	1.80	0.63
1:A:487:GLN:HB3	1:A:537:MET:HE3	1.79	0.63
1:K:336:ASN:ND2	1:K:339:SER:HB2	2.14	0.63
1:C:262:SER:O	1:C:265:THR:HG22	1.99	0.63
1:A:262:SER:O	1:A:265:THR:HG22	1.99	0.63
1:S:553:THR:HG23	1:S:557:ASN:HB2	1.79	0.63
1:J:707:LYS:HG2	1:R:386:GLN:CD	2.18	0.63
1:A:336:ASN:ND2	1:A:339:SER:HB2	2.13	0.63
1:E:225:SER:HB3	1:E:318:ASN:H	1.62	0.63
1:O:590:ASP:HB2	1:O:591:PRO:HA	1.80	0.63
1:J:590:ASP:HB2	1:J:591:PRO:HA	1.80	0.63
1:F:498:ASN:O	1:F:499:SER:OG	2.12	0.63
1:Q:225:SER:HB3	1:Q:318:ASN:H	1.62	0.63
1:D:336:ASN:ND2	1:D:339:SER:HB2	2.13	0.63
1:K:498:ASN:O	1:K:499:SER:OG	2.13	0.63
1:P:590:ASP:HB2	1:P:591:PRO:HA	1.80	0.63
1:P:262:SER:O	1:P:265:THR:HG22	1.99	0.63
1:Q:553:THR:HG23	1:Q:557:ASN:HB2	1.79	0.63
1:A:451:ASN:HB2	1:A:460:ASP:HB3	1.81	0.63
1:L:336:ASN:ND2	1:L:339:SER:HB2	2.14	0.63
1:A:269:ASN:HA	1:A:272:HIS:CD2	2.33	0.63
1:M:498:ASN:O	1:M:499:SER:OG	2.13	0.63
1:F:262:SER:O	1:F:265:THR:HG22	1.99	0.62
1:N:498:ASN:O	1:N:499:SER:OG	2.13	0.62
1:Q:262:SER:O	1:Q:265:THR:HG22	1.99	0.62
1:S:262:SER:O	1:S:265:THR:HG22	1.99	0.62
1:S:272:HIS:HD1	1:S:385:SER:HG	1.45	0.62
1:H:553:THR:HG23	1:H:557:ASN:HB2	1.79	0.62
1:L:590:ASP:HB2	1:L:591:PRO:HA	1.80	0.62
1:G:498:ASN:O	1:G:499:SER:OG	2.13	0.62
1:P:451:ASN:HB2	1:P:460:ASP:HB3	1.81	0.62
1:G:451:ASN:HB2	1:G:460:ASP:HB3	1.81	0.62
1:B:399:PHE:CZ	1:G:693:LYS:HD3	2.34	0.62
1:B:498:ASN:O	1:B:499:SER:OG	2.13	0.62
1:M:262:SER:O	1:M:265:THR:HG22	1.99	0.62
1:T:262:SER:O	1:T:265:THR:HG22	1.99	0.62
1:R:336:ASN:ND2	1:R:339:SER:HB2	2.13	0.62
1:B:553:THR:HG23	1:B:557:ASN:HB2	1.80	0.62
1:J:451:ASN:HB2	1:J:460:ASP:HB3	1.81	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:225:SER:HB3	1:N:318:ASN:H	1.62	0.62
1:E:344:PHE:CZ	1:E:648:LEU:HD12	2.34	0.62
1:O:693:LYS:HD3	1:T:399:PHE:CZ	2.34	0.62
1:M:397:GLU:HB2	1:T:367:PRO:HB2	1.81	0.62
1:J:336:ASN:ND2	1:J:339:SER:HB2	2.14	0.62
1:I:336:ASN:ND2	1:I:339:SER:HB2	2.14	0.62
1:J:262:SER:O	1:J:265:THR:HG22	1.99	0.62
1:K:272:HIS:HD1	1:K:385:SER:HG	1.47	0.62
1:T:553:THR:HG23	1:T:557:ASN:HB2	1.80	0.62
1:F:451:ASN:HB2	1:F:460:ASP:HB3	1.82	0.62
1:E:590:ASP:HB2	1:E:591:PRO:HA	1.80	0.62
1:C:336:ASN:ND2	1:C:339:SER:HB2	2.13	0.62
1:B:272:HIS:HD1	1:B:385:SER:HG	1.45	0.62
1:D:262:SER:O	1:D:265:THR:HG22	1.99	0.62
1:H:262:SER:O	1:H:265:THR:HG22	1.99	0.62
1:L:498:ASN:O	1:L:499:SER:OG	2.12	0.62
1:I:487:GLN:HB3	1:I:537:MET:HE3	1.80	0.62
1:H:693:LYS:HD3	1:N:399:PHE:CZ	2.34	0.62
1:L:344:PHE:CZ	1:L:648:LEU:HD12	2.35	0.62
1:N:693:LYS:HD3	1:Q:399:PHE:CZ	2.34	0.62
1:C:344:PHE:CZ	1:C:648:LEU:HD12	2.34	0.62
1:M:336:ASN:ND2	1:M:339:SER:HB2	2.13	0.62
1:G:336:ASN:ND2	1:G:339:SER:HB2	2.13	0.62
1:O:262:SER:O	1:O:265:THR:HG22	1.99	0.62
1:D:397:GLU:HB2	1:I:367:PRO:HB2	1.81	0.62
1:D:451:ASN:HB2	1:D:460:ASP:HB3	1.81	0.62
1:G:344:PHE:CZ	1:G:648:LEU:HD12	2.35	0.62
1:B:630:HIS:O	1:B:632:SER:N	2.25	0.62
1:F:519:ASN:HB3	1:P:475:PRO:HA	1.80	0.62
1:T:336:ASN:ND2	1:T:339:SER:HB2	2.13	0.62
1:D:344:PHE:CZ	1:D:648:LEU:HD12	2.34	0.62
1:Q:367:PRO:HB2	1:T:397:GLU:HB2	1.82	0.62
1:B:397:GLU:HB2	1:N:367:PRO:HB2	1.82	0.62
1:I:475:PRO:HA	1:P:519:ASN:HB3	1.81	0.62
1:N:336:ASN:ND2	1:N:339:SER:HB2	2.13	0.62
1:R:262:SER:O	1:R:265:THR:HG22	2.00	0.62
1:D:320:GLN:NE2	1:L:338:THR:O	2.32	0.62
1:D:379:LEU:HD13	1:E:433:ARG:HG3	1.79	0.62
1:H:475:PRO:HA	1:N:519:ASN:HB3	1.81	0.62
1:I:262:SER:O	1:I:265:THR:HG22	2.00	0.62
1:H:397:GLU:HG3	1:O:368:ALA:HB2	1.80	0.62
1:O:433:ARG:HG3	1:T:379:LEU:HD13	1.80	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:451:ASN:HB2	1:N:460:ASP:HB3	1.82	0.62
1:B:626:ASP:OD1	1:G:423:SER:OG	2.16	0.62
1:S:344:PHE:CZ	1:S:648:LEU:HD12	2.35	0.62
1:O:630:HIS:O	1:O:632:SER:N	2.25	0.62
1:D:358:ALA:HB1	1:E:442:TYR:CZ	2.34	0.62
1:E:451:ASN:HB2	1:E:460:ASP:HB3	1.82	0.62
1:R:630:HIS:O	1:R:632:SER:N	2.25	0.62
1:L:451:ASN:HB2	1:L:460:ASP:HB3	1.82	0.62
1:Q:590:ASP:HB2	1:Q:591:PRO:HA	1.79	0.62
1:A:344:PHE:CZ	1:A:648:LEU:HD12	2.35	0.62
1:B:367:PRO:HB2	1:C:397:GLU:HB2	1.82	0.62
1:K:626:ASP:OD1	1:R:423:SER:OG	2.17	0.62
1:S:451:ASN:HB2	1:S:460:ASP:HB3	1.82	0.62
1:N:442:TYR:CZ	1:Q:358:ALA:HB1	2.35	0.61
1:B:368:ALA:HB2	1:C:397:GLU:HG3	1.80	0.61
1:J:344:PHE:CZ	1:J:648:LEU:HD12	2.34	0.61
1:C:320:GLN:NE2	1:E:338:THR:O	2.33	0.61
1:T:451:ASN:HB2	1:T:460:ASP:HB3	1.81	0.61
1:I:344:PHE:CZ	1:I:648:LEU:HD12	2.35	0.61
1:N:344:PHE:CZ	1:N:648:LEU:HD12	2.35	0.61
1:P:344:PHE:CZ	1:P:648:LEU:HD12	2.35	0.61
1:Q:344:PHE:CZ	1:Q:648:LEU:HD12	2.35	0.61
1:R:451:ASN:HB2	1:R:460:ASP:HB3	1.81	0.61
1:T:344:PHE:CZ	1:T:648:LEU:HD12	2.35	0.61
1:Q:336:ASN:ND2	1:Q:339:SER:HB2	2.14	0.61
1:I:630:HIS:O	1:I:632:SER:N	2.24	0.61
1:F:693:LYS:HD3	1:I:399:PHE:CZ	2.35	0.61
1:C:451:ASN:HB2	1:C:460:ASP:HB3	1.82	0.61
1:I:451:ASN:HB2	1:I:460:ASP:HB3	1.82	0.61
1:M:451:ASN:HB2	1:M:460:ASP:HB3	1.81	0.61
1:Q:498:ASN:O	1:Q:499:SER:OG	2.12	0.61
1:C:630:HIS:O	1:C:632:SER:N	2.25	0.61
1:C:367:PRO:HB2	1:E:397:GLU:HB2	1.82	0.61
1:J:388:VAL:HG12	1:L:705:TYR:O	2.01	0.61
1:K:344:PHE:CZ	1:K:648:LEU:HD12	2.35	0.61
1:G:367:PRO:HB2	1:Q:397:GLU:HB2	1.81	0.61
1:B:487:GLN:HB3	1:B:537:MET:HE3	1.81	0.61
1:K:262:SER:O	1:K:265:THR:HG22	2.00	0.61
1:O:451:ASN:HB2	1:O:460:ASP:HB3	1.81	0.61
1:L:262:SER:O	1:L:265:THR:HG22	2.00	0.61
1:B:397:GLU:HG3	1:N:368:ALA:HB2	1.82	0.61
1:H:344:PHE:CZ	1:H:648:LEU:HD12	2.36	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:O:344:PHE:CZ	1:O:648:LEU:HD12	2.35	0.61
1:R:344:PHE:CZ	1:R:648:LEU:HD12	2.35	0.61
1:F:344:PHE:CZ	1:F:648:LEU:HD12	2.35	0.61
1:D:367:PRO:HB2	1:L:397:GLU:HB2	1.82	0.61
1:G:262:SER:O	1:G:265:THR:HG22	2.00	0.61
1:F:320:GLN:NE2	1:K:338:THR:O	2.33	0.61
1:N:262:SER:O	1:N:265:THR:HG22	2.01	0.61
1:D:368:ALA:HB2	1:L:397:GLU:HG3	1.83	0.61
1:Q:451:ASN:HB2	1:Q:460:ASP:HB3	1.82	0.61
1:B:262:SER:O	1:B:265:THR:HG22	2.00	0.60
1:H:272:HIS:HD1	1:H:385:SER:HG	1.48	0.60
1:F:626:ASP:OD1	1:P:423:SER:OG	2.16	0.60
1:P:630:HIS:O	1:P:632:SER:N	2.25	0.60
1:A:367:PRO:HB2	1:G:397:GLU:HB2	1.83	0.60
1:A:498:ASN:O	1:A:499:SER:OG	2.13	0.60
1:B:338:THR:O	1:N:320:GLN:NE2	2.33	0.60
1:J:630:HIS:O	1:J:632:SER:N	2.25	0.60
1:M:344:PHE:CZ	1:M:648:LEU:HD12	2.35	0.60
1:O:423:SER:OG	1:T:626:ASP:OD1	2.14	0.60
1:E:262:SER:O	1:E:265:THR:HG22	2.00	0.60
1:G:272:HIS:HD1	1:G:385:SER:HG	1.49	0.60
1:H:451:ASN:HB2	1:H:460:ASP:HB3	1.82	0.60
1:H:399:PHE:CZ	1:Q:693:LYS:HD3	2.36	0.60
1:B:451:ASN:HB2	1:B:460:ASP:HB3	1.82	0.60
1:J:397:GLU:HG3	1:L:368:ALA:HB2	1.83	0.60
1:J:272:HIS:HD1	1:J:385:SER:HG	1.47	0.60
1:R:272:HIS:HD1	1:R:385:SER:HG	1.46	0.60
1:K:520:PRO:HB3	1:K:610:ARG:CZ	2.31	0.60
1:B:344:PHE:CZ	1:B:648:LEU:HD12	2.35	0.60
1:J:654:VAL:HG13	1:L:676:THR:HG21	1.84	0.60
1:B:358:ALA:HB1	1:G:442:TYR:CZ	2.36	0.60
1:F:397:GLU:HG3	1:H:368:ALA:HB2	1.83	0.60
1:F:442:TYR:CZ	1:I:358:ALA:HB1	2.36	0.60
1:H:442:TYR:CZ	1:N:358:ALA:HB1	2.37	0.60
1:K:451:ASN:HB2	1:K:460:ASP:HB3	1.82	0.60
1:A:397:GLU:HB2	1:M:367:PRO:HB2	1.83	0.60
1:A:520:PRO:HB3	1:A:610:ARG:CZ	2.32	0.60
1:C:520:PRO:HB3	1:C:610:ARG:CZ	2.32	0.60
1:B:520:PRO:HB3	1:B:610:ARG:CZ	2.32	0.60
1:P:520:PRO:HB3	1:P:610:ARG:CZ	2.32	0.60
1:N:520:PRO:HB3	1:N:610:ARG:CZ	2.32	0.60
1:F:397:GLU:HB2	1:H:367:PRO:HB2	1.84	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:322:LYS:HE2	1:K:335:ASN:ND2	2.17	0.60
1:L:566:ILE:HD11	1:L:730:ARG:NH1	2.17	0.60
1:O:322:LYS:HE2	1:O:335:ASN:ND2	2.17	0.60
1:R:520:PRO:HB3	1:R:610:ARG:CZ	2.32	0.59
1:P:566:ILE:HD11	1:P:730:ARG:NH1	2.17	0.59
1:A:368:ALA:HB2	1:G:397:GLU:HG3	1.84	0.59
1:E:520:PRO:HB3	1:E:610:ARG:CZ	2.32	0.59
1:R:322:LYS:HE2	1:R:335:ASN:ND2	2.17	0.59
1:T:520:PRO:HB3	1:T:610:ARG:CZ	2.32	0.59
1:C:368:ALA:HB2	1:E:397:GLU:HG3	1.84	0.59
1:D:377:GLY:HA3	1:E:438:LEU:HD13	1.84	0.59
1:D:399:PHE:CZ	1:E:693:LYS:HD3	2.37	0.59
1:E:322:LYS:HE2	1:E:335:ASN:ND2	2.18	0.59
1:M:322:LYS:HE2	1:M:335:ASN:ND2	2.17	0.59
1:O:520:PRO:HB3	1:O:610:ARG:CZ	2.32	0.59
1:D:520:PRO:HB3	1:D:610:ARG:CZ	2.33	0.59
1:H:520:PRO:HB3	1:H:610:ARG:CZ	2.33	0.59
1:L:520:PRO:HB3	1:L:610:ARG:CZ	2.31	0.59
1:G:520:PRO:HB3	1:G:610:ARG:CZ	2.31	0.59
1:I:272:HIS:HD1	1:I:385:SER:HG	1.48	0.59
1:N:322:LYS:HE2	1:N:335:ASN:ND2	2.18	0.59
1:M:520:PRO:HB3	1:M:610:ARG:CZ	2.32	0.59
1:M:397:GLU:HG3	1:T:368:ALA:HB2	1.83	0.59
1:D:397:GLU:HG3	1:I:368:ALA:HB2	1.84	0.59
1:J:322:LYS:HE2	1:J:335:ASN:ND2	2.17	0.59
1:H:626:ASP:OD1	1:Q:423:SER:OG	2.15	0.59
1:J:498:ASN:O	1:J:499:SER:OG	2.12	0.59
1:I:520:PRO:HB3	1:I:610:ARG:CZ	2.32	0.59
1:E:368:ALA:HB2	1:P:397:GLU:HG3	1.84	0.59
1:A:272:HIS:HD1	1:A:385:SER:HG	1.45	0.59
1:B:566:ILE:HD11	1:B:730:ARG:NH1	2.18	0.59
1:P:322:LYS:HE2	1:P:335:ASN:ND2	2.18	0.59
1:Q:368:ALA:HB2	1:T:397:GLU:HG3	1.84	0.59
1:Q:322:LYS:HE2	1:Q:335:ASN:ND2	2.18	0.59
1:K:367:PRO:HB2	1:S:397:GLU:HB2	1.84	0.59
1:Q:520:PRO:HB3	1:Q:610:ARG:CZ	2.32	0.59
1:H:566:ILE:HD11	1:H:730:ARG:NH1	2.18	0.59
1:J:322:LYS:HE2	1:J:335:ASN:HD21	1.67	0.59
1:I:423:SER:OG	1:P:626:ASP:OD1	2.19	0.59
1:S:520:PRO:HB3	1:S:610:ARG:CZ	2.33	0.59
1:F:566:ILE:HD11	1:F:730:ARG:NH1	2.18	0.59
1:F:520:PRO:HB3	1:F:610:ARG:CZ	2.33	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:520:PRO:HB3	1:J:610:ARG:CZ	2.32	0.59
1:N:566:ILE:HD11	1:N:730:ARG:NH1	2.18	0.59
1:A:397:GLU:HG3	1:M:368:ALA:HB2	1.85	0.59
1:N:322:LYS:HE2	1:N:335:ASN:HD21	1.68	0.59
1:S:322:LYS:HE2	1:S:335:ASN:ND2	2.18	0.59
1:K:566:ILE:HD11	1:K:730:ARG:NH1	2.18	0.59
1:D:626:ASP:OD1	1:E:423:SER:OG	2.18	0.59
1:A:322:LYS:HE2	1:A:335:ASN:ND2	2.18	0.59
1:R:288:PHE:HE1	1:R:612:VAL:HB	1.68	0.58
1:O:322:LYS:HE2	1:O:335:ASN:HD21	1.68	0.58
1:Q:566:ILE:HD11	1:Q:730:ARG:NH1	2.18	0.58
1:I:566:ILE:HD11	1:I:730:ARG:NH1	2.18	0.58
1:I:322:LYS:HE2	1:I:335:ASN:ND2	2.18	0.58
1:C:288:PHE:HE1	1:C:612:VAL:HB	1.68	0.58
1:H:598:VAL:HG21	1:Q:599:MET:HE1	1.85	0.58
1:M:322:LYS:HE2	1:M:335:ASN:HD21	1.68	0.58
1:Q:288:PHE:HE1	1:Q:612:VAL:HB	1.68	0.58
1:H:338:THR:O	1:O:320:GLN:NE2	2.35	0.58
1:B:322:LYS:HE2	1:B:335:ASN:ND2	2.18	0.58
1:Q:262:SER:OG	1:Q:385:SER:OG	2.19	0.58
1:K:262:SER:OG	1:K:385:SER:OG	2.19	0.58
1:G:288:PHE:HE1	1:G:612:VAL:HB	1.69	0.58
1:P:322:LYS:HE2	1:P:335:ASN:HD21	1.69	0.58
1:B:320:GLN:NE2	1:C:338:THR:O	2.34	0.58
1:M:262:SER:OG	1:M:385:SER:OG	2.18	0.58
1:H:288:PHE:HE1	1:H:612:VAL:HB	1.68	0.58
1:E:288:PHE:HE1	1:E:612:VAL:HB	1.69	0.58
1:C:566:ILE:HD11	1:C:730:ARG:NH1	2.19	0.58
1:A:566:ILE:HD11	1:A:730:ARG:NH1	2.18	0.58
1:I:693:LYS:HD3	1:P:399:PHE:CZ	2.38	0.58
1:T:566:ILE:HD11	1:T:730:ARG:NH1	2.18	0.58
1:L:322:LYS:HE2	1:L:335:ASN:ND2	2.18	0.58
1:R:322:LYS:HE2	1:R:335:ASN:HD21	1.68	0.58
1:E:322:LYS:HE2	1:E:335:ASN:HD21	1.68	0.58
1:K:288:PHE:HE1	1:K:612:VAL:HB	1.69	0.58
1:O:288:PHE:HE1	1:O:612:VAL:HB	1.68	0.58
1:B:288:PHE:HE1	1:B:612:VAL:HB	1.69	0.58
1:E:566:ILE:HD11	1:E:730:ARG:NH1	2.18	0.58
1:J:566:ILE:HD11	1:J:730:ARG:NH1	2.18	0.58
1:F:358:ALA:HB1	1:P:442:TYR:CZ	2.37	0.58
1:O:566:ILE:HD11	1:O:730:ARG:NH1	2.19	0.58
1:A:322:LYS:HE2	1:A:335:ASN:HD21	1.69	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:322:LYS:HE2	1:B:335:ASN:HD21	1.68	0.58
1:J:288:PHE:HE1	1:J:612:VAL:HB	1.68	0.58
1:S:566:ILE:HD11	1:S:730:ARG:NH1	2.19	0.58
1:I:322:LYS:HE2	1:I:335:ASN:HD21	1.69	0.58
1:S:288:PHE:HE1	1:S:612:VAL:HB	1.69	0.58
1:F:338:THR:O	1:H:320:GLN:NE2	2.35	0.58
1:G:322:LYS:HE2	1:G:335:ASN:ND2	2.19	0.58
1:I:438:LEU:HD13	1:P:377:GLY:HA3	1.85	0.58
1:S:527:HIS:NE2	1:S:562:ASP:OD2	2.36	0.58
1:I:508:LYS:HA	1:I:518:ILE:HG13	1.86	0.58
1:R:566:ILE:HD11	1:R:730:ARG:NH1	2.19	0.58
1:H:322:LYS:HE2	1:H:335:ASN:ND2	2.19	0.58
1:J:338:THR:O	1:L:320:GLN:HG2	2.04	0.58
1:F:527:HIS:NE2	1:F:562:ASP:OD2	2.36	0.58
1:K:508:LYS:HA	1:K:518:ILE:HG13	1.86	0.58
1:T:508:LYS:HA	1:T:518:ILE:HG13	1.85	0.58
1:L:322:LYS:HE2	1:L:335:ASN:HD21	1.69	0.58
1:K:559:MET:SD	1:K:725:ARG:HA	2.44	0.58
1:T:322:LYS:HE2	1:T:335:ASN:ND2	2.18	0.58
1:C:322:LYS:HE2	1:C:335:ASN:HD21	1.69	0.58
1:O:599:MET:HE1	1:T:598:VAL:HG21	1.84	0.58
1:O:508:LYS:HA	1:O:518:ILE:HG13	1.85	0.57
1:D:527:HIS:NE2	1:D:562:ASP:OD2	2.36	0.57
1:K:322:LYS:HE2	1:K:335:ASN:HD21	1.68	0.57
1:Q:322:LYS:HE2	1:Q:335:ASN:HD21	1.68	0.57
1:C:322:LYS:HE2	1:C:335:ASN:ND2	2.18	0.57
1:D:288:PHE:HE1	1:D:612:VAL:HB	1.68	0.57
1:D:566:ILE:HD11	1:D:730:ARG:NH1	2.19	0.57
1:C:527:HIS:NE2	1:C:562:ASP:OD2	2.35	0.57
1:D:322:LYS:HE2	1:D:335:ASN:HD21	1.69	0.57
1:H:438:LEU:HD13	1:N:377:GLY:HA3	1.86	0.57
1:D:559:MET:SD	1:D:725:ARG:HA	2.45	0.57
1:A:508:LYS:HA	1:A:518:ILE:HG13	1.86	0.57
1:I:262:SER:OG	1:I:385:SER:OG	2.18	0.57
1:F:508:LYS:HA	1:F:518:ILE:HG13	1.86	0.57
1:L:288:PHE:HE1	1:L:612:VAL:HB	1.69	0.57
1:T:288:PHE:HE1	1:T:612:VAL:HB	1.68	0.57
1:G:322:LYS:HE2	1:G:335:ASN:HD21	1.70	0.57
1:T:322:LYS:HE2	1:T:335:ASN:HD21	1.69	0.57
1:I:559:MET:SD	1:I:725:ARG:HA	2.44	0.57
1:N:288:PHE:HE1	1:N:612:VAL:HB	1.68	0.57
1:G:262:SER:OG	1:G:385:SER:OG	2.18	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:559:MET:SD	1:E:725:ARG:HA	2.44	0.57
1:L:559:MET:SD	1:L:725:ARG:HA	2.45	0.57
1:M:559:MET:SD	1:M:725:ARG:HA	2.45	0.57
1:O:397:GLU:HB2	1:S:367:PRO:HB2	1.85	0.57
1:B:559:MET:SD	1:B:725:ARG:HA	2.44	0.57
1:L:508:LYS:HA	1:L:518:ILE:HG13	1.86	0.57
1:R:249:LEU:HD13	1:R:373:ILE:HB	1.87	0.57
1:J:259:GLN:HB2	1:L:715:VAL:O	2.05	0.57
1:J:725:ARG:HB2	1:J:726:PRO:HD2	1.87	0.57
1:M:288:PHE:HE1	1:M:612:VAL:HB	1.69	0.57
1:D:508:LYS:HA	1:D:518:ILE:HG13	1.86	0.57
1:D:322:LYS:HE2	1:D:335:ASN:ND2	2.18	0.57
1:E:249:LEU:HD13	1:E:373:ILE:HB	1.87	0.57
1:R:559:MET:SD	1:R:725:ARG:HA	2.45	0.57
1:F:599:MET:HE1	1:I:598:VAL:HG21	1.87	0.57
1:M:566:ILE:HD11	1:M:730:ARG:NH1	2.18	0.57
1:M:249:LEU:HD13	1:M:373:ILE:HB	1.87	0.57
1:B:508:LYS:HA	1:B:518:ILE:HG13	1.86	0.57
1:K:368:ALA:HB2	1:S:397:GLU:HG3	1.87	0.57
1:H:322:LYS:HE2	1:H:335:ASN:HD21	1.70	0.57
1:H:377:GLY:HA3	1:Q:438:LEU:HD13	1.87	0.57
1:F:322:LYS:HE2	1:F:335:ASN:ND2	2.19	0.57
1:O:438:LEU:HD13	1:T:377:GLY:HA3	1.87	0.57
1:E:508:LYS:HA	1:E:518:ILE:HG13	1.86	0.57
1:S:262:SER:OG	1:S:385:SER:OG	2.19	0.57
1:J:559:MET:SD	1:J:725:ARG:HA	2.45	0.57
1:Q:559:MET:SD	1:Q:725:ARG:HA	2.45	0.57
1:G:725:ARG:HB2	1:G:726:PRO:HD2	1.87	0.57
1:M:527:HIS:NE2	1:M:562:ASP:OD2	2.36	0.57
1:F:368:ALA:HB2	1:K:397:GLU:HG3	1.85	0.57
1:G:368:ALA:HB2	1:Q:397:GLU:HG3	1.87	0.57
1:G:559:MET:SD	1:G:725:ARG:HA	2.44	0.57
1:L:249:LEU:HD13	1:L:373:ILE:HB	1.86	0.57
1:F:559:MET:SD	1:F:725:ARG:HA	2.45	0.57
1:G:566:ILE:HD11	1:G:730:ARG:NH1	2.19	0.56
1:A:288:PHE:HE1	1:A:612:VAL:HB	1.68	0.56
1:O:397:GLU:HG3	1:S:368:ALA:HB2	1.87	0.56
1:B:249:LEU:HD13	1:B:373:ILE:HB	1.87	0.56
1:K:249:LEU:HD13	1:K:373:ILE:HB	1.87	0.56
1:P:249:LEU:HD13	1:P:373:ILE:HB	1.87	0.56
1:C:498:ASN:O	1:C:499:SER:OG	2.13	0.56
1:A:725:ARG:HB2	1:A:726:PRO:HD2	1.87	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:338:THR:O	1:R:320:GLN:NE2	2.31	0.56
1:K:527:HIS:NE2	1:K:562:ASP:OD2	2.36	0.56
1:M:508:LYS:HA	1:M:518:ILE:HG13	1.86	0.56
1:E:272:HIS:HD1	1:E:385:SER:HG	1.50	0.56
1:L:262:SER:OG	1:L:385:SER:OG	2.18	0.56
1:F:288:PHE:HE1	1:F:612:VAL:HB	1.69	0.56
1:B:377:GLY:HA3	1:G:438:LEU:HD13	1.87	0.56
1:T:559:MET:SD	1:T:725:ARG:HA	2.45	0.56
1:G:508:LYS:HA	1:G:518:ILE:HG13	1.86	0.56
1:H:508:LYS:HA	1:H:518:ILE:HG13	1.86	0.56
1:Q:508:LYS:HA	1:Q:518:ILE:HG13	1.87	0.56
1:N:397:GLU:HB2	1:P:367:PRO:HB2	1.86	0.56
1:P:288:PHE:HE1	1:P:612:VAL:HB	1.68	0.56
1:I:288:PHE:HE1	1:I:612:VAL:HB	1.69	0.56
1:S:249:LEU:HD13	1:S:373:ILE:HB	1.87	0.56
1:E:315:LYS:HB2	1:E:680:SER:HB2	1.87	0.56
1:O:559:MET:SD	1:O:725:ARG:HA	2.45	0.56
1:I:249:LEU:HD13	1:I:373:ILE:HB	1.88	0.56
1:C:249:LEU:HD13	1:C:373:ILE:HB	1.86	0.56
1:S:725:ARG:HB2	1:S:726:PRO:HD2	1.87	0.56
1:B:527:HIS:NE2	1:B:562:ASP:OD2	2.37	0.56
1:R:508:LYS:HA	1:R:518:ILE:HG13	1.87	0.56
1:K:725:ARG:HB2	1:K:726:PRO:HD2	1.87	0.56
1:D:725:ARG:HB2	1:D:726:PRO:HD2	1.87	0.56
1:S:559:MET:SD	1:S:725:ARG:HA	2.45	0.56
1:I:599:MET:HE1	1:P:598:VAL:HG21	1.87	0.56
1:N:559:MET:SD	1:N:725:ARG:HA	2.46	0.56
1:H:559:MET:SD	1:H:725:ARG:HA	2.45	0.56
1:H:725:ARG:HB2	1:H:726:PRO:HD2	1.86	0.56
1:N:508:LYS:HA	1:N:518:ILE:HG13	1.87	0.56
1:S:322:LYS:HE2	1:S:335:ASN:HD21	1.69	0.56
1:D:431:LEU:HD21	1:D:478:TRP:HB2	1.87	0.56
1:O:249:LEU:HD13	1:O:373:ILE:HB	1.87	0.56
1:J:372:MET:SD	1:R:659:PRO:HD2	2.46	0.56
1:N:599:MET:HE1	1:Q:598:VAL:HG21	1.87	0.56
1:E:546:GLU:HG2	1:E:722:THR:HG22	1.87	0.56
1:J:431:LEU:HD21	1:J:478:TRP:HB2	1.88	0.56
1:A:249:LEU:HD13	1:A:373:ILE:HB	1.87	0.56
1:C:508:LYS:HA	1:C:518:ILE:HG13	1.86	0.56
1:E:725:ARG:HB2	1:E:726:PRO:HD2	1.87	0.56
1:T:249:LEU:HD13	1:T:373:ILE:HB	1.87	0.56
1:T:431:LEU:HD21	1:T:478:TRP:HB2	1.88	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:315:LYS:HB2	1:L:680:SER:HB2	1.88	0.56
1:J:370:VAL:HG11	1:R:655:PRO:HG3	1.88	0.56
1:J:249:LEU:HD13	1:J:373:ILE:HB	1.87	0.56
1:J:508:LYS:HA	1:J:518:ILE:HG13	1.87	0.56
1:N:725:ARG:HB2	1:N:726:PRO:HD2	1.87	0.56
1:D:598:VAL:HG21	1:E:599:MET:HE1	1.86	0.56
1:S:441:GLN:OE1	1:S:475:PRO:HD2	2.06	0.56
1:I:315:LYS:HB2	1:I:680:SER:HB2	1.88	0.56
1:N:249:LEU:HD13	1:N:373:ILE:HB	1.88	0.56
1:N:431:LEU:HD21	1:N:478:TRP:HB2	1.88	0.56
1:J:664:ALA:HB2	1:L:360:GLN:CD	2.25	0.56
1:S:508:LYS:HA	1:S:518:ILE:HG13	1.87	0.56
1:O:262:SER:OG	1:O:385:SER:OG	2.18	0.56
1:R:725:ARG:HB2	1:R:726:PRO:HD2	1.86	0.56
1:B:431:LEU:HD21	1:B:478:TRP:HB2	1.88	0.56
1:K:431:LEU:HD21	1:K:478:TRP:HB2	1.88	0.56
1:H:249:LEU:HD13	1:H:373:ILE:HB	1.87	0.56
1:A:546:GLU:HG2	1:A:722:THR:HG22	1.88	0.56
1:H:472:SER:HB3	1:N:270:ASP:O	2.06	0.56
1:C:431:LEU:HD21	1:C:478:TRP:HB2	1.88	0.56
1:F:497:ASN:OD1	1:F:498:ASN:N	2.39	0.56
1:B:725:ARG:HB2	1:B:726:PRO:HD2	1.87	0.56
1:T:725:ARG:HB2	1:T:726:PRO:HD2	1.88	0.56
1:J:370:VAL:HG11	1:R:655:PRO:CG	2.35	0.56
1:D:249:LEU:HD13	1:D:373:ILE:HB	1.87	0.56
1:O:431:LEU:HD21	1:O:478:TRP:HB2	1.88	0.56
1:D:441:GLN:OE1	1:D:475:PRO:HD2	2.06	0.56
1:H:431:LEU:HD21	1:H:478:TRP:HB2	1.88	0.56
1:I:441:GLN:OE1	1:I:475:PRO:HD2	2.06	0.56
1:J:527:HIS:NE2	1:J:562:ASP:OD2	2.36	0.56
1:N:527:HIS:NE2	1:N:562:ASP:OD2	2.36	0.56
1:P:508:LYS:HA	1:P:518:ILE:HG13	1.87	0.56
1:M:725:ARG:HB2	1:M:726:PRO:HD2	1.87	0.56
1:F:322:LYS:HE2	1:F:335:ASN:HD21	1.69	0.56
1:A:559:MET:SD	1:A:725:ARG:HA	2.46	0.56
1:R:300:LEU:HD21	1:R:307:PHE:CD2	2.41	0.56
1:G:320:GLN:NE2	1:Q:338:THR:O	2.36	0.56
1:F:249:LEU:HD13	1:F:373:ILE:HB	1.87	0.56
1:O:300:LEU:HD21	1:O:307:PHE:CD2	2.41	0.56
1:D:300:LEU:HD21	1:D:307:PHE:CD2	2.41	0.56
1:O:472:SER:HB3	1:T:270:ASP:O	2.06	0.56
1:G:300:LEU:HD21	1:G:307:PHE:CD2	2.41	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:R:431:LEU:HD21	1:R:478:TRP:HB2	1.89	0.55
1:C:559:MET:SD	1:C:725:ARG:HA	2.45	0.55
1:M:441:GLN:OE1	1:M:475:PRO:HD2	2.06	0.55
1:Q:441:GLN:OE1	1:Q:475:PRO:HD2	2.06	0.55
1:O:441:GLN:OE1	1:O:475:PRO:HD2	2.06	0.55
1:H:566:ILE:HG23	1:H:608:GLN:HB2	1.89	0.55
1:L:725:ARG:HB2	1:L:726:PRO:HD2	1.87	0.55
1:H:300:LEU:HD21	1:H:307:PHE:CD2	2.41	0.55
1:Q:546:GLU:HG2	1:Q:722:THR:HG22	1.89	0.55
1:A:320:GLN:NE2	1:G:338:THR:O	2.35	0.55
1:I:300:LEU:HD21	1:I:307:PHE:CD2	2.42	0.55
1:C:300:LEU:HD21	1:C:307:PHE:CD2	2.41	0.55
1:K:300:LEU:HD21	1:K:307:PHE:CD2	2.41	0.55
1:H:270:ASP:O	1:Q:472:SER:HB3	2.06	0.55
1:G:441:GLN:OE1	1:G:475:PRO:HD2	2.06	0.55
1:G:249:LEU:HD13	1:G:373:ILE:HB	1.87	0.55
1:A:566:ILE:HG23	1:A:608:GLN:HB2	1.89	0.55
1:O:725:ARG:HB2	1:O:726:PRO:HD2	1.87	0.55
1:I:546:GLU:HG2	1:I:722:THR:HG22	1.88	0.55
1:J:441:GLN:OE1	1:J:475:PRO:HD2	2.06	0.55
1:K:441:GLN:OE1	1:K:475:PRO:HD2	2.07	0.55
1:Q:431:LEU:HD21	1:Q:478:TRP:HB2	1.88	0.55
1:F:438:LEU:HD13	1:I:377:GLY:HA3	1.88	0.55
1:Q:249:LEU:HD13	1:Q:373:ILE:HB	1.88	0.55
1:G:431:LEU:HD21	1:G:478:TRP:HB2	1.88	0.55
1:J:300:LEU:HD21	1:J:307:PHE:CD2	2.41	0.55
1:M:546:GLU:HG2	1:M:722:THR:HG22	1.88	0.55
1:J:315:LYS:HB2	1:J:680:SER:HB2	1.88	0.55
1:F:431:LEU:HD21	1:F:478:TRP:HB2	1.88	0.55
1:Q:497:ASN:OD1	1:Q:498:ASN:N	2.40	0.55
1:I:725:ARG:HB2	1:I:726:PRO:HD2	1.87	0.55
1:F:725:ARG:HB2	1:F:726:PRO:HD2	1.88	0.55
1:T:315:LYS:HB2	1:T:680:SER:HB2	1.88	0.55
1:B:315:LYS:HB2	1:B:680:SER:HB2	1.88	0.55
1:P:441:GLN:OE1	1:P:475:PRO:HD2	2.07	0.55
1:E:441:GLN:OE1	1:E:475:PRO:HD2	2.06	0.55
1:N:315:LYS:HB2	1:N:680:SER:HB2	1.89	0.55
1:N:438:LEU:HD13	1:Q:377:GLY:HA3	1.88	0.55
1:C:519:ASN:CB	1:C:520:PRO:HD2	2.35	0.55
1:K:497:ASN:OD1	1:K:498:ASN:N	2.40	0.55
1:E:262:SER:OG	1:E:385:SER:OG	2.17	0.55
1:I:566:ILE:HG23	1:I:608:GLN:HB2	1.89	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:Q:725:ARG:HB2	1:Q:726:PRO:HD2	1.87	0.55
1:L:300:LEU:HD21	1:L:307:PHE:CD2	2.42	0.55
1:F:300:LEU:HD21	1:F:307:PHE:CD2	2.41	0.55
1:C:441:GLN:OE1	1:C:475:PRO:HD2	2.06	0.55
1:L:441:GLN:OE1	1:L:475:PRO:HD2	2.06	0.55
1:Q:320:GLN:NE2	1:T:338:THR:O	2.38	0.55
1:A:441:GLN:OE1	1:A:475:PRO:HD2	2.07	0.55
1:A:300:LEU:HD21	1:A:307:PHE:CD2	2.42	0.55
1:E:320:GLN:NE2	1:P:338:THR:O	2.35	0.55
1:D:519:ASN:CB	1:D:520:PRO:HD2	2.35	0.55
1:N:441:GLN:OE1	1:N:475:PRO:HD2	2.06	0.55
1:H:441:GLN:OE1	1:H:475:PRO:HD2	2.07	0.55
1:I:527:HIS:NE2	1:I:562:ASP:OD2	2.37	0.55
1:T:497:ASN:OD1	1:T:498:ASN:N	2.40	0.55
1:M:497:ASN:OD1	1:M:498:ASN:N	2.40	0.55
1:D:566:ILE:HG23	1:D:608:GLN:HB2	1.89	0.55
1:F:315:LYS:HB2	1:F:680:SER:HB2	1.87	0.55
1:L:546:GLU:HG2	1:L:722:THR:HG22	1.89	0.55
1:O:315:LYS:HB2	1:O:680:SER:HB2	1.88	0.55
1:J:231:ASP:HB2	1:R:400:PRO:HG3	1.89	0.55
1:J:707:LYS:CG	1:R:386:GLN:CG	2.84	0.55
1:O:566:ILE:HG23	1:O:608:GLN:HB2	1.89	0.55
1:D:546:GLU:HG2	1:D:722:THR:HG22	1.88	0.55
1:I:472:SER:HB3	1:P:270:ASP:O	2.06	0.55
1:T:300:LEU:HD21	1:T:307:PHE:CD2	2.42	0.55
1:P:725:ARG:HB2	1:P:726:PRO:HD2	1.87	0.55
1:F:519:ASN:CB	1:F:520:PRO:HD2	2.35	0.55
1:N:497:ASN:OD1	1:N:498:ASN:N	2.40	0.55
1:R:497:ASN:OD1	1:R:498:ASN:N	2.40	0.55
1:P:566:ILE:HG23	1:P:608:GLN:HB2	1.88	0.55
1:P:559:MET:SD	1:P:725:ARG:HA	2.46	0.55
1:N:300:LEU:HD21	1:N:307:PHE:CD2	2.41	0.55
1:P:300:LEU:HD21	1:P:307:PHE:CD2	2.41	0.55
1:R:441:GLN:OE1	1:R:475:PRO:HD2	2.06	0.55
1:H:497:ASN:OD1	1:H:498:ASN:N	2.40	0.55
1:L:497:ASN:OD1	1:L:498:ASN:N	2.40	0.55
1:C:497:ASN:OD1	1:C:498:ASN:N	2.40	0.55
1:B:598:VAL:HG21	1:G:599:MET:HE1	1.88	0.55
1:S:300:LEU:HD21	1:S:307:PHE:CD2	2.41	0.55
1:B:300:LEU:HD21	1:B:307:PHE:CD2	2.42	0.55
1:Q:300:LEU:HD21	1:Q:307:PHE:CD2	2.42	0.55
1:F:441:GLN:OE1	1:F:475:PRO:HD2	2.06	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:519:ASN:CB	1:K:520:PRO:HD2	2.35	0.54
1:B:262:SER:OG	1:B:385:SER:OG	2.19	0.54
1:F:566:ILE:HG23	1:F:608:GLN:HB2	1.90	0.54
1:G:566:ILE:HG23	1:G:608:GLN:HB2	1.89	0.54
1:R:566:ILE:HG23	1:R:608:GLN:HB2	1.89	0.54
1:B:566:ILE:HG23	1:B:608:GLN:HB2	1.89	0.54
1:R:546:GLU:HG2	1:R:722:THR:HG22	1.89	0.54
1:M:300:LEU:HD21	1:M:307:PHE:CD2	2.41	0.54
1:M:455:SER:O	1:M:457:GLN:N	2.39	0.54
1:N:546:GLU:HG2	1:N:722:THR:HG22	1.89	0.54
1:S:431:LEU:HD21	1:S:478:TRP:HB2	1.88	0.54
1:Q:272:HIS:HD1	1:Q:385:SER:HG	1.48	0.54
1:S:490:SER:HB3	1:S:496:ASN:OD1	2.07	0.54
1:M:431:LEU:HD21	1:M:478:TRP:HB2	1.88	0.54
1:Q:315:LYS:HB2	1:Q:680:SER:HB2	1.89	0.54
1:I:519:ASN:CB	1:I:520:PRO:HD2	2.35	0.54
1:H:527:HIS:NE2	1:H:562:ASP:OD2	2.37	0.54
1:G:527:HIS:NE2	1:G:562:ASP:OD2	2.35	0.54
1:O:497:ASN:OD1	1:O:498:ASN:N	2.41	0.54
1:Q:566:ILE:HG23	1:Q:608:GLN:HB2	1.89	0.54
1:E:566:ILE:HG23	1:E:608:GLN:HB2	1.89	0.54
1:A:431:LEU:HD21	1:A:478:TRP:HB2	1.89	0.54
1:C:546:GLU:HG2	1:C:722:THR:HG22	1.89	0.54
1:I:431:LEU:HD21	1:I:478:TRP:HB2	1.89	0.54
1:K:270:ASP:O	1:R:472:SER:HB3	2.08	0.54
1:G:546:GLU:HG2	1:G:722:THR:HG22	1.88	0.54
1:T:441:GLN:OE1	1:T:475:PRO:HD2	2.07	0.54
1:A:315:LYS:HB2	1:A:680:SER:HB2	1.88	0.54
1:K:315:LYS:HB2	1:K:680:SER:HB2	1.89	0.54
1:N:696:ASN:HD21	1:Q:393:PHE:H	1.55	0.54
1:K:399:PHE:CE2	1:R:693:LYS:HD3	2.42	0.54
1:S:566:ILE:HG23	1:S:608:GLN:HB2	1.90	0.54
1:J:455:SER:O	1:J:457:GLN:N	2.39	0.54
1:N:490:SER:HB3	1:N:496:ASN:OD1	2.08	0.54
1:K:377:GLY:HA3	1:R:438:LEU:HD13	1.88	0.54
1:C:490:SER:HB3	1:C:496:ASN:OD1	2.08	0.54
1:P:490:SER:HB3	1:P:496:ASN:OD1	2.08	0.54
1:S:545:LYS:O	1:S:547:SER:N	2.41	0.54
1:H:546:GLU:HG2	1:H:722:THR:HG22	1.89	0.54
1:B:546:GLU:HG2	1:B:722:THR:HG22	1.89	0.54
1:H:696:ASN:HD21	1:N:393:PHE:H	1.53	0.54
1:I:455:SER:O	1:I:457:GLN:N	2.39	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:527:HIS:NE2	1:L:562:ASP:OD2	2.37	0.54
1:T:262:SER:OG	1:T:385:SER:OG	2.18	0.54
1:P:366:PHE:CE2	1:P:368:ALA:HB3	2.43	0.54
1:E:497:ASN:OD1	1:E:498:ASN:N	2.40	0.54
1:G:315:LYS:HB2	1:G:680:SER:HB2	1.88	0.54
1:M:490:SER:HB3	1:M:496:ASN:OD1	2.08	0.54
1:J:262:SER:OG	1:J:385:SER:OG	2.18	0.54
1:M:366:PHE:CE2	1:M:368:ALA:HB3	2.43	0.54
1:T:566:ILE:HG23	1:T:608:GLN:HB2	1.89	0.54
1:J:566:ILE:HG23	1:J:608:GLN:HB2	1.88	0.54
1:K:598:VAL:HG21	1:R:599:MET:HE1	1.88	0.54
1:K:546:GLU:HG2	1:K:722:THR:HG22	1.88	0.54
1:F:270:ASP:O	1:P:472:SER:HB3	2.07	0.54
1:F:546:GLU:HG2	1:F:722:THR:HG22	1.89	0.54
1:J:257:TYR:HE1	1:L:368:ALA:HB2	1.73	0.54
1:P:455:SER:O	1:P:457:GLN:N	2.40	0.54
1:B:497:ASN:OD1	1:B:498:ASN:N	2.41	0.54
1:G:497:ASN:OD1	1:G:498:ASN:N	2.40	0.54
1:A:366:PHE:CE2	1:A:368:ALA:HB3	2.43	0.54
1:A:497:ASN:OD1	1:A:498:ASN:N	2.40	0.54
1:D:626:ASP:OD1	1:E:608:GLN:NE2	2.41	0.54
1:C:725:ARG:HB2	1:C:726:PRO:HD2	1.87	0.54
1:B:490:SER:HB3	1:B:496:ASN:OD1	2.08	0.54
1:S:546:GLU:HG2	1:S:722:THR:HG22	1.89	0.54
1:D:315:LYS:HB2	1:D:680:SER:HB2	1.88	0.54
1:J:366:PHE:CE2	1:J:368:ALA:HB3	2.43	0.54
1:F:393:PHE:H	1:P:696:ASN:HD21	1.52	0.54
1:I:497:ASN:OD1	1:I:498:ASN:N	2.40	0.54
1:Q:527:HIS:NE2	1:Q:562:ASP:OD2	2.36	0.54
1:R:366:PHE:CE2	1:R:368:ALA:HB3	2.43	0.54
1:D:497:ASN:OD1	1:D:498:ASN:N	2.40	0.54
1:N:366:PHE:CE2	1:N:368:ALA:HB3	2.43	0.54
1:J:497:ASN:OD1	1:J:498:ASN:N	2.41	0.54
1:C:566:ILE:HG23	1:C:608:GLN:HB2	1.89	0.54
1:F:545:LYS:O	1:F:547:SER:N	2.41	0.54
1:B:270:ASP:O	1:G:472:SER:HB3	2.07	0.54
1:G:519:ASN:CB	1:G:520:PRO:HD2	2.35	0.54
1:D:262:SER:OG	1:D:385:SER:OG	2.19	0.54
1:S:497:ASN:OD1	1:S:498:ASN:N	2.41	0.54
1:A:485:ARG:NE	1:A:574:THR:O	2.41	0.54
1:A:490:SER:HB3	1:A:496:ASN:OD1	2.07	0.54
1:S:315:LYS:HB2	1:S:680:SER:HB2	1.89	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:315:LYS:HB2	1:H:680:SER:HB2	1.90	0.54
1:B:441:GLN:OE1	1:B:475:PRO:HD2	2.07	0.54
1:P:431:LEU:HD21	1:P:478:TRP:HB2	1.88	0.54
1:P:546:GLU:HG2	1:P:722:THR:HG22	1.89	0.54
1:T:455:SER:O	1:T:457:GLN:N	2.39	0.54
1:M:519:ASN:CB	1:M:520:PRO:HD2	2.36	0.53
1:C:366:PHE:CE2	1:C:368:ALA:HB3	2.44	0.53
1:K:566:ILE:HG23	1:K:608:GLN:HB2	1.89	0.53
1:S:366:PHE:CE2	1:S:368:ALA:HB3	2.43	0.53
1:L:431:LEU:HD21	1:L:478:TRP:HB2	1.88	0.53
1:E:431:LEU:HD21	1:E:478:TRP:HB2	1.88	0.53
1:S:455:SER:O	1:S:457:GLN:N	2.39	0.53
1:M:566:ILE:HG23	1:M:608:GLN:HB2	1.88	0.53
1:O:546:GLU:HG2	1:O:722:THR:HG22	1.89	0.53
1:N:472:SER:HB3	1:Q:270:ASP:O	2.08	0.53
1:K:239:VAL:HG13	1:K:685:TRP:HB2	1.91	0.53
1:R:490:SER:HB3	1:R:496:ASN:OD1	2.08	0.53
1:T:527:HIS:NE2	1:T:562:ASP:OD2	2.36	0.53
1:O:366:PHE:CE2	1:O:368:ALA:HB3	2.43	0.53
1:B:366:PHE:CE2	1:B:368:ALA:HB3	2.43	0.53
1:J:654:VAL:HG11	1:L:322:LYS:HZ2	1.74	0.53
1:M:315:LYS:HB2	1:M:680:SER:HB2	1.89	0.53
1:P:315:LYS:HB2	1:P:680:SER:HB2	1.90	0.53
1:J:398:TYR:OH	1:L:296:ASP:OD2	2.22	0.53
1:P:527:HIS:NE2	1:P:562:ASP:OD2	2.36	0.53
1:A:527:HIS:NE2	1:A:562:ASP:OD2	2.37	0.53
1:F:366:PHE:CE2	1:F:368:ALA:HB3	2.43	0.53
1:E:366:PHE:CE2	1:E:368:ALA:HB3	2.44	0.53
1:H:490:SER:HB3	1:H:496:ASN:OD1	2.08	0.53
1:K:490:SER:HB3	1:K:496:ASN:OD1	2.08	0.53
1:P:262:SER:OG	1:P:385:SER:OG	2.19	0.53
1:K:366:PHE:CE2	1:K:368:ALA:HB3	2.43	0.53
1:K:481:GLY:HA3	1:K:607:TRP:HB3	1.91	0.53
1:B:485:ARG:NE	1:B:574:THR:O	2.42	0.53
1:J:546:GLU:HG2	1:J:722:THR:HG22	1.89	0.53
1:E:300:LEU:HD21	1:E:307:PHE:CD2	2.42	0.53
1:J:664:ALA:CB	1:L:360:GLN:CD	2.77	0.53
1:Q:519:ASN:CB	1:Q:520:PRO:HD2	2.35	0.53
1:R:519:ASN:CB	1:R:520:PRO:HD2	2.35	0.53
1:P:497:ASN:OD1	1:P:498:ASN:N	2.40	0.53
1:N:566:ILE:HG23	1:N:608:GLN:HB2	1.90	0.53
1:H:366:PHE:CE2	1:H:368:ALA:HB3	2.43	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:O:545:LYS:O	1:O:547:SER:N	2.42	0.53
1:C:455:SER:O	1:C:457:GLN:N	2.39	0.53
1:K:545:LYS:O	1:K:547:SER:N	2.41	0.53
1:O:239:VAL:HG13	1:O:685:TRP:HB2	1.91	0.53
1:T:546:GLU:HG2	1:T:722:THR:HG22	1.89	0.53
1:T:490:SER:HB3	1:T:496:ASN:OD1	2.09	0.53
1:B:519:ASN:CB	1:B:520:PRO:HD2	2.35	0.53
1:O:527:HIS:NE2	1:O:562:ASP:OD2	2.37	0.53
1:R:455:SER:O	1:R:457:GLN:N	2.39	0.53
1:J:715:VAL:HG21	1:R:257:TYR:C	2.28	0.53
1:I:366:PHE:CE2	1:I:368:ALA:HB3	2.43	0.53
1:L:566:ILE:HG23	1:L:608:GLN:HB2	1.89	0.53
1:F:481:GLY:HA3	1:F:607:TRP:HB3	1.91	0.53
1:D:490:SER:HB3	1:D:496:ASN:OD1	2.08	0.53
1:G:239:VAL:HG13	1:G:685:TRP:HB2	1.91	0.53
1:I:239:VAL:HG13	1:I:685:TRP:HB2	1.90	0.53
1:G:545:LYS:O	1:G:547:SER:N	2.41	0.53
1:A:455:SER:O	1:A:457:GLN:N	2.39	0.53
1:E:490:SER:HB3	1:E:496:ASN:OD1	2.08	0.53
1:B:455:SER:O	1:B:457:GLN:N	2.39	0.53
1:A:519:ASN:CB	1:A:520:PRO:HD2	2.35	0.53
1:D:481:GLY:HA3	1:D:607:TRP:HB3	1.91	0.53
1:L:545:LYS:O	1:L:547:SER:N	2.41	0.53
1:G:455:SER:O	1:G:457:GLN:N	2.39	0.53
1:H:423:SER:OG	1:N:626:ASP:OD1	2.21	0.53
1:D:366:PHE:CE2	1:D:368:ALA:HB3	2.43	0.53
1:Q:490:SER:HB3	1:Q:496:ASN:OD1	2.09	0.53
1:G:481:GLY:HA3	1:G:607:TRP:HB3	1.91	0.53
1:I:490:SER:HB3	1:I:496:ASN:OD1	2.08	0.53
1:C:239:VAL:HG13	1:C:685:TRP:HB2	1.91	0.53
1:K:485:ARG:NE	1:K:574:THR:O	2.42	0.53
1:O:481:GLY:HA3	1:O:607:TRP:HB3	1.91	0.53
1:G:366:PHE:CE2	1:G:368:ALA:HB3	2.43	0.53
1:G:490:SER:HB3	1:G:496:ASN:OD1	2.09	0.53
1:O:485:ARG:NE	1:O:574:THR:O	2.42	0.53
1:C:485:ARG:NE	1:C:574:THR:O	2.42	0.53
1:O:490:SER:HB3	1:O:496:ASN:OD1	2.09	0.53
1:J:490:SER:HB3	1:J:496:ASN:OD1	2.08	0.53
1:C:481:GLY:HA3	1:C:607:TRP:HB3	1.91	0.53
1:L:366:PHE:CE2	1:L:368:ALA:HB3	2.43	0.52
1:J:519:ASN:CB	1:J:520:PRO:HD2	2.35	0.52
1:E:519:ASN:CB	1:E:520:PRO:HD2	2.35	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:490:SER:HB3	1:F:496:ASN:OD1	2.08	0.52
1:F:239:VAL:HG13	1:F:685:TRP:HB2	1.91	0.52
1:C:545:LYS:O	1:C:547:SER:N	2.40	0.52
1:L:490:SER:HB3	1:L:496:ASN:OD1	2.08	0.52
1:C:315:LYS:HB2	1:C:680:SER:HB2	1.89	0.52
1:R:262:SER:OG	1:R:385:SER:OG	2.18	0.52
1:E:481:GLY:HA3	1:E:607:TRP:HB3	1.91	0.52
1:P:481:GLY:HA3	1:P:607:TRP:HB3	1.92	0.52
1:C:519:ASN:H	1:C:519:ASN:HD22	1.57	0.52
1:K:393:PHE:H	1:R:696:ASN:HD21	1.52	0.52
1:F:696:ASN:HD21	1:I:393:PHE:H	1.57	0.52
1:T:366:PHE:CE2	1:T:368:ALA:HB3	2.44	0.52
1:I:485:ARG:NE	1:I:574:THR:O	2.43	0.52
1:R:239:VAL:HG13	1:R:685:TRP:HB2	1.90	0.52
1:H:239:VAL:HG13	1:H:685:TRP:HB2	1.92	0.52
1:S:481:GLY:HA3	1:S:607:TRP:HB3	1.92	0.52
1:O:338:THR:O	1:S:320:GLN:NE2	2.38	0.52
1:A:519:ASN:H	1:A:519:ASN:HD22	1.57	0.52
1:M:519:ASN:H	1:M:519:ASN:HD22	1.58	0.52
1:R:519:ASN:H	1:R:519:ASN:HD22	1.57	0.52
1:F:262:SER:OG	1:F:385:SER:OG	2.18	0.52
1:H:455:SER:O	1:H:457:GLN:N	2.39	0.52
1:C:262:SER:OG	1:C:385:SER:OG	2.18	0.52
1:I:608:GLN:NE2	1:P:626:ASP:OD1	2.43	0.52
1:J:481:GLY:HA3	1:J:607:TRP:HB3	1.91	0.52
1:F:377:GLY:HA3	1:P:438:LEU:HD13	1.90	0.52
1:Q:481:GLY:HA3	1:Q:607:TRP:HB3	1.91	0.52
1:T:481:GLY:HA3	1:T:607:TRP:HB3	1.91	0.52
1:F:472:SER:HB3	1:I:270:ASP:O	2.09	0.52
1:L:519:ASN:H	1:L:519:ASN:HD22	1.58	0.52
1:J:652:THR:HG21	1:L:678:GLN:HE21	1.74	0.52
1:E:611:ASP:HB2	1:E:730:ARG:NH1	2.25	0.52
1:C:611:ASP:HB2	1:C:730:ARG:NH1	2.25	0.52
1:O:490:SER:HB2	1:O:534:PHE:CE2	2.45	0.52
1:T:239:VAL:HG13	1:T:685:TRP:HB2	1.91	0.52
1:D:485:ARG:NE	1:D:574:THR:O	2.42	0.52
1:B:481:GLY:HA3	1:B:607:TRP:HB3	1.91	0.52
1:G:611:ASP:HB2	1:G:730:ARG:NH1	2.25	0.52
1:J:611:ASP:OD1	1:J:612:VAL:N	2.43	0.52
1:S:485:ARG:NE	1:S:574:THR:O	2.42	0.52
1:R:315:LYS:HB2	1:R:680:SER:HB2	1.91	0.52
1:A:481:GLY:HA3	1:A:607:TRP:HB3	1.91	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:657:ASN:H	1:E:657:ASN:HD22	1.58	0.52
1:L:481:GLY:HA3	1:L:607:TRP:HB3	1.91	0.52
1:T:545:LYS:O	1:T:547:SER:N	2.42	0.52
1:N:545:LYS:O	1:N:547:SER:N	2.41	0.52
1:J:707:LYS:HG2	1:R:386:GLN:NE2	2.25	0.52
1:N:262:SER:OG	1:N:385:SER:OG	2.18	0.52
1:Q:366:PHE:CE2	1:Q:368:ALA:HB3	2.44	0.52
1:O:611:ASP:HB2	1:O:730:ARG:NH1	2.24	0.52
1:B:239:VAL:HG13	1:B:685:TRP:HB2	1.92	0.52
1:R:485:ARG:NE	1:R:574:THR:O	2.43	0.52
1:F:485:ARG:NE	1:F:574:THR:O	2.43	0.52
1:T:519:ASN:CB	1:T:520:PRO:HD2	2.35	0.52
1:O:308:ARG:HD2	1:O:310:LYS:NZ	2.25	0.52
1:N:611:ASP:OD1	1:N:612:VAL:N	2.43	0.52
1:A:262:SER:OG	1:A:385:SER:OG	2.19	0.52
1:P:611:ASP:HB2	1:P:730:ARG:NH1	2.25	0.52
1:L:239:VAL:HG13	1:L:685:TRP:HB2	1.91	0.52
1:L:455:SER:O	1:L:457:GLN:N	2.39	0.52
1:B:308:ARG:HD2	1:B:310:LYS:NZ	2.25	0.52
1:M:308:ARG:HD2	1:M:310:LYS:NZ	2.25	0.52
1:N:608:GLN:HE21	1:Q:625:THR:HB	1.75	0.52
1:H:626:ASP:OD1	1:Q:608:GLN:NE2	2.43	0.52
1:R:481:GLY:HA3	1:R:607:TRP:HB3	1.92	0.52
1:S:519:ASN:CB	1:S:520:PRO:HD2	2.35	0.52
1:R:527:HIS:NE2	1:R:562:ASP:OD2	2.36	0.52
1:S:611:ASP:HB2	1:S:730:ARG:NH1	2.25	0.52
1:A:338:THR:O	1:M:320:GLN:NE2	2.35	0.52
1:R:545:LYS:O	1:R:547:SER:N	2.41	0.52
1:P:239:VAL:HG13	1:P:685:TRP:HB2	1.91	0.52
1:D:239:VAL:HG13	1:D:685:TRP:HB2	1.91	0.52
1:F:598:VAL:HG21	1:P:599:MET:HE1	1.92	0.52
1:H:519:ASN:HD22	1:H:519:ASN:H	1.58	0.51
1:D:308:ARG:HD2	1:D:310:LYS:NZ	2.25	0.51
1:I:308:ARG:HD2	1:I:310:LYS:NZ	2.25	0.51
1:L:272:HIS:CE1	1:L:385:SER:HG	2.28	0.51
1:F:451:ASN:ND2	1:F:460:ASP:OD2	2.38	0.51
1:K:611:ASP:HB2	1:K:730:ARG:NH1	2.26	0.51
1:A:611:ASP:HB2	1:A:730:ARG:NH1	2.25	0.51
1:M:490:SER:HB2	1:M:534:PHE:CE2	2.46	0.51
1:D:338:THR:O	1:I:320:GLN:NE2	2.37	0.51
1:I:545:LYS:O	1:I:547:SER:N	2.41	0.51
1:D:502:THR:HG21	1:E:447:ASN:O	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:239:VAL:HG13	1:N:685:TRP:HB2	1.91	0.51
1:M:481:GLY:HA3	1:M:607:TRP:HB3	1.91	0.51
1:J:239:VAL:HG13	1:J:685:TRP:HB2	1.92	0.51
1:F:519:ASN:HD22	1:F:519:ASN:H	1.58	0.51
1:N:611:ASP:HB2	1:N:730:ARG:NH1	2.25	0.51
1:R:611:ASP:HB2	1:R:730:ARG:NH1	2.25	0.51
1:Q:611:ASP:HB2	1:Q:730:ARG:NH1	2.26	0.51
1:D:270:ASP:O	1:E:472:SER:HB3	2.09	0.51
1:T:437:PRO:C	1:T:438:LEU:HD12	2.31	0.51
1:A:545:LYS:O	1:A:547:SER:N	2.41	0.51
1:Q:239:VAL:HG13	1:Q:685:TRP:HB2	1.91	0.51
1:T:490:SER:HB2	1:T:534:PHE:CE2	2.46	0.51
1:F:490:SER:HB2	1:F:534:PHE:CE2	2.46	0.51
1:M:485:ARG:NE	1:M:574:THR:O	2.42	0.51
1:M:437:PRO:C	1:M:438:LEU:HD12	2.31	0.51
1:N:481:GLY:HA3	1:N:607:TRP:HB3	1.91	0.51
1:P:545:LYS:O	1:P:547:SER:N	2.41	0.51
1:N:519:ASN:HD22	1:N:519:ASN:H	1.58	0.51
1:H:611:ASP:HB2	1:H:730:ARG:NH1	2.26	0.51
1:H:262:SER:OG	1:H:385:SER:OG	2.19	0.51
1:L:611:ASP:HB2	1:L:730:ARG:NH1	2.26	0.51
1:B:611:ASP:OD1	1:B:612:VAL:N	2.44	0.51
1:C:490:SER:HB2	1:C:534:PHE:CE2	2.45	0.51
1:I:490:SER:HB2	1:I:534:PHE:CE2	2.46	0.51
1:R:657:ASN:H	1:R:657:ASN:HD22	1.58	0.51
1:H:599:MET:HE1	1:N:598:VAL:HG21	1.93	0.51
1:J:545:LYS:O	1:J:547:SER:N	2.41	0.51
1:G:519:ASN:HD22	1:G:519:ASN:H	1.58	0.51
1:B:519:ASN:HD22	1:B:519:ASN:H	1.58	0.51
1:N:693:LYS:HD3	1:Q:399:PHE:CE2	2.46	0.51
1:L:611:ASP:OD1	1:L:612:VAL:N	2.44	0.51
1:F:437:PRO:C	1:F:438:LEU:HD12	2.31	0.51
1:Q:545:LYS:O	1:Q:547:SER:N	2.41	0.51
1:H:481:GLY:HA3	1:H:607:TRP:HB3	1.91	0.51
1:T:302:ASN:HD21	1:T:701:TYR:H	1.59	0.51
1:Q:485:ARG:NE	1:Q:574:THR:O	2.42	0.51
1:E:485:ARG:NE	1:E:574:THR:O	2.42	0.51
1:J:401:SER:O	1:L:228:TRP:N	2.43	0.51
1:P:308:ARG:HD2	1:P:310:LYS:NZ	2.25	0.51
1:E:527:HIS:NE2	1:E:562:ASP:OD2	2.37	0.51
1:A:451:ASN:ND2	1:A:460:ASP:OD2	2.37	0.51
1:J:611:ASP:HB2	1:J:730:ARG:NH1	2.25	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:T:249:LEU:HG	1:T:651:ASN:HD21	1.76	0.51
1:Q:249:LEU:HG	1:Q:651:ASN:HD21	1.76	0.51
1:K:502:THR:HG21	1:R:447:ASN:O	2.11	0.51
1:D:455:SER:O	1:D:457:GLN:N	2.39	0.51
1:S:239:VAL:HG13	1:S:685:TRP:HB2	1.91	0.51
1:M:239:VAL:HG13	1:M:685:TRP:HB2	1.91	0.51
1:A:239:VAL:HG13	1:A:685:TRP:HB2	1.91	0.51
1:P:519:ASN:CB	1:P:520:PRO:HD2	2.35	0.51
1:E:455:SER:O	1:E:457:GLN:N	2.39	0.51
1:H:608:GLN:NE2	1:N:626:ASP:OD1	2.44	0.51
1:E:272:HIS:CE1	1:E:385:SER:HG	2.28	0.51
1:E:611:ASP:OD1	1:E:612:VAL:N	2.44	0.51
1:T:611:ASP:HB2	1:T:730:ARG:NH1	2.26	0.51
1:K:657:ASN:H	1:K:657:ASN:HD22	1.59	0.51
1:H:302:ASN:HD21	1:H:701:TYR:H	1.59	0.51
1:L:437:PRO:C	1:L:438:LEU:HD12	2.31	0.51
1:B:302:ASN:HD21	1:B:701:TYR:H	1.59	0.51
1:E:239:VAL:HG13	1:E:685:TRP:HB2	1.92	0.51
1:J:519:ASN:H	1:J:519:ASN:HD22	1.58	0.51
1:C:519:ASN:CB	1:C:520:PRO:CD	2.89	0.51
1:S:308:ARG:HD2	1:S:310:LYS:NZ	2.26	0.51
1:G:308:ARG:HD2	1:G:310:LYS:NZ	2.26	0.51
1:F:399:PHE:CE2	1:P:693:LYS:HD3	2.45	0.51
1:B:625:THR:HB	1:G:608:GLN:HE21	1.76	0.51
1:M:611:ASP:HB2	1:M:730:ARG:NH1	2.25	0.51
1:P:490:SER:HB2	1:P:534:PHE:CE2	2.46	0.51
1:B:490:SER:HB2	1:B:534:PHE:CE2	2.46	0.51
1:E:490:SER:HB2	1:E:534:PHE:CE2	2.46	0.51
1:G:490:SER:HB2	1:G:534:PHE:CE2	2.46	0.51
1:Q:302:ASN:HD21	1:Q:701:TYR:H	1.59	0.51
1:H:502:THR:HG21	1:Q:447:ASN:O	2.10	0.51
1:J:485:ARG:NE	1:J:574:THR:O	2.42	0.51
1:N:485:ARG:NE	1:N:574:THR:O	2.43	0.51
1:C:437:PRO:C	1:C:438:LEU:HD12	2.32	0.51
1:P:519:ASN:H	1:P:519:ASN:HD22	1.59	0.51
1:L:308:ARG:HD2	1:L:310:LYS:NZ	2.26	0.51
1:N:308:ARG:HD2	1:N:310:LYS:NZ	2.26	0.51
1:H:249:LEU:HG	1:H:651:ASN:HD21	1.76	0.51
1:N:490:SER:HB2	1:N:534:PHE:CE2	2.46	0.51
1:J:490:SER:HB2	1:J:534:PHE:CE2	2.46	0.51
1:S:302:ASN:HD21	1:S:701:TYR:H	1.59	0.51
1:A:519:ASN:CB	1:A:520:PRO:CD	2.89	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:T:308:ARG:HD2	1:T:310:LYS:NZ	2.25	0.51
1:H:693:LYS:HD3	1:N:399:PHE:CE2	2.46	0.51
1:O:608:GLN:NE2	1:T:626:ASP:OD1	2.43	0.51
1:E:437:PRO:C	1:E:438:LEU:HD12	2.32	0.51
1:J:367:PRO:HB2	1:R:397:GLU:HB2	1.94	0.51
1:D:490:SER:HB2	1:D:534:PHE:CE2	2.46	0.51
1:J:657:ASN:H	1:J:657:ASN:HD22	1.59	0.51
1:D:302:ASN:HD21	1:D:701:TYR:H	1.59	0.51
1:O:519:ASN:CB	1:O:520:PRO:CD	2.89	0.50
1:B:393:PHE:H	1:G:696:ASN:HD21	1.55	0.50
1:B:399:PHE:CE2	1:G:693:LYS:HD3	2.45	0.50
1:H:490:SER:HB2	1:H:534:PHE:CE2	2.45	0.50
1:L:657:ASN:H	1:L:657:ASN:HD22	1.59	0.50
1:N:657:ASN:HD22	1:N:657:ASN:H	1.58	0.50
1:I:481:GLY:HA3	1:I:607:TRP:HB3	1.91	0.50
1:E:545:LYS:O	1:E:547:SER:N	2.42	0.50
1:S:437:PRO:C	1:S:438:LEU:HD12	2.31	0.50
1:L:485:ARG:NE	1:L:574:THR:O	2.43	0.50
1:H:545:LYS:O	1:H:547:SER:N	2.42	0.50
1:I:519:ASN:HD22	1:I:519:ASN:H	1.58	0.50
1:C:308:ARG:HD2	1:C:310:LYS:NZ	2.25	0.50
1:F:308:ARG:HD2	1:F:310:LYS:NZ	2.26	0.50
1:Q:455:SER:O	1:Q:457:GLN:N	2.39	0.50
1:F:611:ASP:HB2	1:F:730:ARG:NH1	2.26	0.50
1:G:611:ASP:OD1	1:G:612:VAL:N	2.44	0.50
1:R:611:ASP:OD1	1:R:612:VAL:N	2.44	0.50
1:O:451:ASN:ND2	1:O:460:ASP:OD2	2.37	0.50
1:B:611:ASP:HB2	1:B:730:ARG:NH1	2.26	0.50
1:I:611:ASP:HB2	1:I:730:ARG:NH1	2.26	0.50
1:A:611:ASP:OD1	1:A:612:VAL:N	2.44	0.50
1:S:490:SER:HB2	1:S:534:PHE:CE2	2.46	0.50
1:F:657:ASN:HD22	1:F:657:ASN:H	1.59	0.50
1:S:657:ASN:HD22	1:S:657:ASN:H	1.59	0.50
1:T:519:ASN:CB	1:T:520:PRO:CD	2.89	0.50
1:A:308:ARG:HD2	1:A:310:LYS:NZ	2.26	0.50
1:Q:611:ASP:OD1	1:Q:612:VAL:N	2.44	0.50
1:A:423:SER:HB2	1:A:730:ARG:HH21	1.76	0.50
1:I:437:PRO:C	1:I:438:LEU:HD12	2.32	0.50
1:D:611:ASP:HB2	1:D:730:ARG:NH1	2.26	0.50
1:C:249:LEU:HG	1:C:651:ASN:HD21	1.77	0.50
1:A:249:LEU:HG	1:A:651:ASN:HD21	1.77	0.50
1:K:490:SER:HB2	1:K:534:PHE:CE2	2.46	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:O:447:ASN:O	1:T:502:THR:HG21	2.11	0.50
1:K:437:PRO:C	1:K:438:LEU:HD12	2.32	0.50
1:M:545:LYS:O	1:M:547:SER:N	2.41	0.50
1:O:520:PRO:HG2	1:O:541:MET:SD	2.51	0.50
1:K:519:ASN:HD22	1:K:519:ASN:H	1.58	0.50
1:E:519:ASN:CB	1:E:520:PRO:CD	2.90	0.50
1:Q:519:ASN:HD22	1:Q:519:ASN:H	1.58	0.50
1:H:519:ASN:CB	1:H:520:PRO:CD	2.89	0.50
1:T:519:ASN:H	1:T:519:ASN:HD22	1.57	0.50
1:S:519:ASN:HD22	1:S:519:ASN:H	1.59	0.50
1:T:451:ASN:ND2	1:T:460:ASP:OD2	2.38	0.50
1:K:611:ASP:OD1	1:K:612:VAL:N	2.44	0.50
1:D:611:ASP:OD1	1:D:612:VAL:N	2.44	0.50
1:O:437:PRO:C	1:O:438:LEU:HD12	2.32	0.50
1:N:249:LEU:HG	1:N:651:ASN:HD21	1.76	0.50
1:D:545:LYS:O	1:D:547:SER:N	2.41	0.50
1:M:302:ASN:HD21	1:M:701:TYR:H	1.60	0.50
1:H:429:GLN:OE1	1:N:352:PRO:HB3	2.11	0.50
1:O:519:ASN:H	1:O:519:ASN:HD22	1.59	0.50
1:D:519:ASN:CB	1:D:520:PRO:CD	2.89	0.50
1:L:519:ASN:CB	1:L:520:PRO:CD	2.89	0.50
1:G:519:ASN:CB	1:G:520:PRO:CD	2.89	0.50
1:S:519:ASN:CB	1:S:520:PRO:CD	2.90	0.50
1:H:611:ASP:OD1	1:H:612:VAL:N	2.44	0.50
1:F:611:ASP:OD1	1:F:612:VAL:N	2.45	0.50
1:P:611:ASP:OD1	1:P:612:VAL:N	2.44	0.50
1:L:423:SER:HB2	1:L:730:ARG:HH21	1.77	0.50
1:N:437:PRO:C	1:N:438:LEU:HD12	2.31	0.50
1:R:490:SER:HB2	1:R:534:PHE:CE2	2.47	0.50
1:H:657:ASN:HD22	1:H:657:ASN:H	1.59	0.50
1:H:485:ARG:NE	1:H:574:THR:O	2.43	0.50
1:C:302:ASN:HD21	1:C:701:TYR:H	1.59	0.50
1:H:519:ASN:CB	1:H:520:PRO:HD2	2.35	0.50
1:O:696:ASN:HD21	1:T:392:SER:HA	1.77	0.50
1:Q:272:HIS:CE1	1:Q:385:SER:HG	2.30	0.50
1:J:423:SER:HB2	1:J:730:ARG:HH21	1.77	0.50
1:M:423:SER:HB2	1:M:730:ARG:HH21	1.76	0.50
1:G:437:PRO:C	1:G:438:LEU:HD12	2.31	0.50
1:D:657:ASN:HD22	1:D:657:ASN:H	1.59	0.50
1:B:545:LYS:O	1:B:547:SER:N	2.41	0.50
1:J:519:ASN:CB	1:J:520:PRO:CD	2.89	0.50
1:H:308:ARG:HD2	1:H:310:LYS:NZ	2.26	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:423:SER:HB2	1:F:730:ARG:HH21	1.77	0.50
1:I:249:LEU:HG	1:I:651:ASN:HD21	1.76	0.50
1:R:437:PRO:C	1:R:438:LEU:HD12	2.32	0.50
1:D:437:PRO:C	1:D:438:LEU:HD12	2.31	0.50
1:P:519:ASN:CB	1:P:520:PRO:CD	2.89	0.50
1:F:455:SER:O	1:F:457:GLN:N	2.40	0.50
1:L:451:ASN:ND2	1:L:460:ASP:OD2	2.38	0.50
1:O:611:ASP:OD1	1:O:612:VAL:N	2.45	0.50
1:I:611:ASP:OD1	1:I:612:VAL:N	2.45	0.50
1:K:423:SER:HB2	1:K:730:ARG:HH21	1.77	0.50
1:T:423:SER:HB2	1:T:730:ARG:HH21	1.76	0.50
1:M:422:HIS:NE2	1:M:612:VAL:HG22	2.27	0.50
1:B:657:ASN:H	1:B:657:ASN:HD22	1.59	0.50
1:K:455:SER:O	1:K:457:GLN:N	2.39	0.50
1:B:437:PRO:C	1:B:438:LEU:HD12	2.32	0.50
1:E:302:ASN:HD21	1:E:701:TYR:H	1.59	0.50
1:L:519:ASN:CB	1:L:520:PRO:HD2	2.35	0.50
1:N:519:ASN:CB	1:N:520:PRO:CD	2.90	0.50
1:B:519:ASN:CB	1:B:520:PRO:CD	2.90	0.50
1:F:608:GLN:HE21	1:I:625:THR:HB	1.76	0.50
1:I:423:SER:HB2	1:I:730:ARG:HH21	1.77	0.50
1:C:611:ASP:OD1	1:C:612:VAL:N	2.44	0.50
1:D:423:SER:HB2	1:D:730:ARG:HH21	1.77	0.50
1:P:437:PRO:C	1:P:438:LEU:HD12	2.32	0.50
1:T:485:ARG:NE	1:T:574:THR:O	2.42	0.50
1:K:302:ASN:HD21	1:K:701:TYR:H	1.60	0.50
1:J:707:LYS:HA	1:R:387:ALA:O	2.12	0.49
1:D:519:ASN:H	1:D:519:ASN:HD22	1.58	0.49
1:Q:308:ARG:HD2	1:Q:310:LYS:NZ	2.27	0.49
1:K:308:ARG:HD2	1:K:310:LYS:NZ	2.26	0.49
1:J:308:ARG:HD2	1:J:310:LYS:NZ	2.26	0.49
1:P:302:ASN:HD21	1:P:701:TYR:H	1.59	0.49
1:J:437:PRO:C	1:J:438:LEU:HD12	2.32	0.49
1:G:302:ASN:HD21	1:G:701:TYR:H	1.60	0.49
1:K:320:GLN:NE2	1:S:338:THR:O	2.37	0.49
1:R:308:ARG:HD2	1:R:310:LYS:NZ	2.26	0.49
1:D:498:ASN:HD21	1:E:457:GLN:NE2	2.10	0.49
1:H:272:HIS:CE1	1:H:385:SER:HG	2.31	0.49
1:E:423:SER:HB2	1:E:730:ARG:HH21	1.78	0.49
1:T:422:HIS:NE2	1:T:612:VAL:HG22	2.28	0.49
1:H:437:PRO:C	1:H:438:LEU:HD12	2.32	0.49
1:E:249:LEU:HG	1:E:651:ASN:HD21	1.76	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:249:LEU:HG	1:B:651:ASN:HD21	1.77	0.49
1:A:490:SER:HB2	1:A:534:PHE:CE2	2.46	0.49
1:L:302:ASN:HD21	1:L:701:TYR:H	1.60	0.49
1:K:357:SER:O	1:K:359:HIS:N	2.46	0.49
1:E:519:ASN:HD22	1:E:519:ASN:H	1.59	0.49
1:K:392:SER:OG	1:R:694:ARG:NH1	2.45	0.49
1:J:272:HIS:CE1	1:J:385:SER:HG	2.28	0.49
1:Q:423:SER:HB2	1:Q:730:ARG:HH21	1.77	0.49
1:T:611:ASP:OD1	1:T:612:VAL:N	2.44	0.49
1:M:249:LEU:HG	1:M:651:ASN:HD21	1.77	0.49
1:K:249:LEU:HG	1:K:651:ASN:HD21	1.77	0.49
1:C:657:ASN:HD22	1:C:657:ASN:H	1.59	0.49
1:N:313:ASN:HB3	1:N:682:GLU:HB3	1.94	0.49
1:M:338:THR:O	1:T:320:GLN:NE2	2.42	0.49
1:J:400:PRO:HD3	1:L:231:ASP:HB2	1.93	0.49
1:P:520:PRO:HG2	1:P:541:MET:SD	2.52	0.49
1:F:519:ASN:CB	1:F:520:PRO:CD	2.89	0.49
1:K:289:HIS:ND1	1:K:365:PRO:HB3	2.28	0.49
1:N:422:HIS:NE2	1:N:612:VAL:HG22	2.28	0.49
1:B:626:ASP:OD1	1:G:608:GLN:NE2	2.45	0.49
1:O:608:GLN:HE21	1:T:625:THR:HB	1.77	0.49
1:S:611:ASP:OD1	1:S:612:VAL:N	2.45	0.49
1:M:611:ASP:OD1	1:M:612:VAL:N	2.45	0.49
1:D:249:LEU:HG	1:D:651:ASN:HD21	1.77	0.49
1:Q:490:SER:HB2	1:Q:534:PHE:CE2	2.46	0.49
1:A:657:ASN:HD22	1:A:657:ASN:H	1.59	0.49
1:T:657:ASN:H	1:T:657:ASN:HD22	1.58	0.49
1:P:313:ASN:HB3	1:P:682:GLU:HB3	1.95	0.49
1:E:520:PRO:HG2	1:E:541:MET:SD	2.53	0.49
1:J:655:PRO:CG	1:L:370:VAL:HG11	2.39	0.49
1:E:308:ARG:HD2	1:E:310:LYS:NZ	2.27	0.49
1:D:601:ALA:O	1:D:602:LEU:HB2	2.13	0.49
1:H:392:SER:HA	1:Q:696:ASN:HD21	1.77	0.49
1:J:451:ASN:ND2	1:J:460:ASP:OD2	2.38	0.49
1:O:693:LYS:HD3	1:T:399:PHE:CE2	2.47	0.49
1:P:423:SER:HB2	1:P:730:ARG:HH21	1.77	0.49
1:K:451:ASN:ND2	1:K:460:ASP:OD2	2.38	0.49
1:K:422:HIS:NE2	1:K:612:VAL:HG22	2.28	0.49
1:L:249:LEU:HG	1:L:651:ASN:HD21	1.77	0.49
1:P:249:LEU:HG	1:P:651:ASN:HD21	1.77	0.49
1:F:313:ASN:HB3	1:F:682:GLU:HB3	1.94	0.49
1:J:601:ALA:O	1:J:602:LEU:HB2	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:P:289:HIS:ND1	1:P:365:PRO:HB3	2.28	0.49
1:G:601:ALA:O	1:G:602:LEU:HB2	2.13	0.49
1:Q:422:HIS:NE2	1:Q:612:VAL:HG22	2.28	0.49
1:R:249:LEU:HG	1:R:651:ASN:HD21	1.77	0.49
1:D:289:HIS:ND1	1:D:365:PRO:HB3	2.28	0.49
1:G:422:HIS:NE2	1:G:612:VAL:HG22	2.27	0.49
1:K:626:ASP:OD1	1:R:608:GLN:NE2	2.46	0.49
1:F:693:LYS:HD3	1:I:399:PHE:CE2	2.48	0.49
1:L:490:SER:HB2	1:L:534:PHE:CE2	2.46	0.49
1:J:302:ASN:HD21	1:J:701:TYR:H	1.59	0.49
1:F:352:PRO:HB3	1:P:429:GLN:OE1	2.12	0.49
1:I:313:ASN:HB3	1:I:682:GLU:HB3	1.95	0.49
1:A:302:ASN:HD21	1:A:701:TYR:H	1.60	0.49
1:H:357:SER:O	1:H:359:HIS:N	2.46	0.49
1:J:664:ALA:HB2	1:L:360:GLN:CG	2.42	0.49
1:N:519:ASN:CB	1:N:520:PRO:HD2	2.35	0.49
1:S:520:PRO:HG2	1:S:541:MET:SD	2.53	0.49
1:N:455:SER:O	1:N:457:GLN:N	2.39	0.49
1:G:289:HIS:ND1	1:G:365:PRO:HB3	2.28	0.49
1:T:289:HIS:ND1	1:T:365:PRO:HB3	2.28	0.49
1:N:423:SER:HB2	1:N:730:ARG:HH21	1.77	0.49
1:G:272:HIS:CE1	1:G:385:SER:HG	2.28	0.49
1:R:451:ASN:ND2	1:R:460:ASP:OD2	2.38	0.49
1:C:422:HIS:NE2	1:C:612:VAL:HG22	2.28	0.49
1:S:249:LEU:HG	1:S:651:ASN:HD21	1.77	0.49
1:R:302:ASN:HD21	1:R:701:TYR:H	1.60	0.49
1:B:357:SER:O	1:B:359:HIS:N	2.46	0.49
1:D:520:PRO:HG2	1:D:541:MET:SD	2.53	0.49
1:C:289:HIS:ND1	1:C:365:PRO:HB3	2.28	0.49
1:Q:289:HIS:ND1	1:Q:365:PRO:HB3	2.28	0.49
1:B:289:HIS:ND1	1:B:365:PRO:HB3	2.28	0.49
1:N:265:THR:HG23	1:N:267:ALA:H	1.77	0.49
1:G:249:LEU:HG	1:G:651:ASN:HD21	1.77	0.49
1:D:625:THR:HB	1:E:608:GLN:HE21	1.78	0.49
1:C:423:SER:HB2	1:C:730:ARG:HH21	1.78	0.49
1:F:249:LEU:HG	1:F:651:ASN:HD21	1.77	0.49
1:O:657:ASN:HD22	1:O:657:ASN:H	1.59	0.49
1:N:254:ASN:ND2	1:N:254:ASN:O	2.46	0.49
1:A:313:ASN:HB3	1:A:682:GLU:HB3	1.95	0.49
1:J:705:TYR:HA	1:R:389:GLY:CA	2.37	0.49
1:I:357:SER:O	1:I:359:HIS:N	2.46	0.49
1:A:520:PRO:HG2	1:A:541:MET:SD	2.53	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:520:PRO:HG2	1:N:541:MET:SD	2.53	0.49
1:R:520:PRO:HG2	1:R:541:MET:SD	2.53	0.49
1:N:289:HIS:ND1	1:N:365:PRO:HB3	2.28	0.49
1:R:422:HIS:NE2	1:R:612:VAL:HG22	2.27	0.49
1:L:422:HIS:NE2	1:L:612:VAL:HG22	2.27	0.49
1:Q:437:PRO:C	1:Q:438:LEU:HD12	2.32	0.49
1:O:249:LEU:HG	1:O:651:ASN:HD21	1.77	0.49
1:J:249:LEU:HG	1:J:651:ASN:HD21	1.77	0.49
1:F:302:ASN:HD21	1:F:701:TYR:H	1.60	0.49
1:A:437:PRO:C	1:A:438:LEU:HD12	2.33	0.49
1:D:313:ASN:HB3	1:D:682:GLU:HB3	1.94	0.49
1:E:313:ASN:HB3	1:E:682:GLU:HB3	1.94	0.49
1:L:250:PRO:HG2	1:L:252:TYR:CE2	2.48	0.48
1:J:339:SER:HA	1:L:320:GLN:NE2	2.28	0.48
1:P:357:SER:O	1:P:359:HIS:N	2.46	0.48
1:O:519:ASN:CB	1:O:520:PRO:HD2	2.35	0.48
1:Q:520:PRO:HG2	1:Q:541:MET:SD	2.53	0.48
1:L:520:PRO:HG2	1:L:541:MET:SD	2.53	0.48
1:J:403:MET:HG3	1:L:227:ASN:HA	1.94	0.48
1:J:310:LYS:HB2	1:J:684:GLU:O	2.13	0.48
1:J:282:TYR:CE2	1:J:374:PRO:HB2	2.48	0.48
1:K:282:TYR:CE2	1:K:374:PRO:HB2	2.48	0.48
1:R:423:SER:HB2	1:R:730:ARG:HH21	1.77	0.48
1:E:422:HIS:NE2	1:E:612:VAL:HG22	2.28	0.48
1:I:657:ASN:HD22	1:I:657:ASN:H	1.59	0.48
1:G:254:ASN:O	1:G:254:ASN:ND2	2.46	0.48
1:G:657:ASN:HD22	1:G:657:ASN:H	1.59	0.48
1:M:601:ALA:O	1:M:602:LEU:HB2	2.13	0.48
1:P:485:ARG:NE	1:P:574:THR:O	2.42	0.48
1:M:519:ASN:CB	1:M:520:PRO:CD	2.90	0.48
1:M:520:PRO:HG2	1:M:541:MET:SD	2.53	0.48
1:S:289:HIS:ND1	1:S:365:PRO:HB3	2.28	0.48
1:A:289:HIS:ND1	1:A:365:PRO:HB3	2.28	0.48
1:P:657:ASN:HD22	1:P:657:ASN:H	1.60	0.48
1:Q:657:ASN:H	1:Q:657:ASN:HD22	1.59	0.48
1:G:313:ASN:HB3	1:G:682:GLU:HB3	1.95	0.48
1:E:621:LYS:HB2	1:E:643:PRO:HG3	1.95	0.48
1:J:711:VAL:HB	1:R:276:TYR:OH	2.13	0.48
1:J:520:PRO:HG2	1:J:541:MET:SD	2.53	0.48
1:I:520:PRO:HG2	1:I:541:MET:SD	2.53	0.48
1:K:392:SER:HA	1:R:696:ASN:HD21	1.79	0.48
1:T:601:ALA:O	1:T:602:LEU:HB2	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:272:HIS:CE1	1:I:385:SER:HG	2.29	0.48
1:B:282:TYR:CE2	1:B:374:PRO:HB2	2.48	0.48
1:P:282:TYR:CE2	1:P:374:PRO:HB2	2.49	0.48
1:A:282:TYR:CE2	1:A:374:PRO:HB2	2.48	0.48
1:G:423:SER:HB2	1:G:730:ARG:HH21	1.77	0.48
1:Q:451:ASN:ND2	1:Q:460:ASP:OD2	2.38	0.48
1:B:451:ASN:ND2	1:B:460:ASP:OD2	2.38	0.48
1:B:422:HIS:NE2	1:B:612:VAL:HG22	2.28	0.48
1:O:357:SER:O	1:O:359:HIS:N	2.46	0.48
1:C:357:SER:O	1:C:359:HIS:N	2.46	0.48
1:L:313:ASN:HB3	1:L:682:GLU:HB3	1.95	0.48
1:P:621:LYS:HB2	1:P:643:PRO:HG3	1.96	0.48
1:T:313:ASN:HB3	1:T:682:GLU:HB3	1.95	0.48
1:I:447:ASN:O	1:P:502:THR:HG21	2.12	0.48
1:D:357:SER:O	1:D:359:HIS:N	2.46	0.48
1:I:250:PRO:HG2	1:I:252:TYR:CE2	2.49	0.48
1:R:601:ALA:O	1:R:602:LEU:HB2	2.13	0.48
1:O:601:ALA:O	1:O:602:LEU:HB2	2.14	0.48
1:I:601:ALA:O	1:I:602:LEU:HB2	2.13	0.48
1:P:601:ALA:O	1:P:602:LEU:HB2	2.13	0.48
1:J:289:HIS:ND1	1:J:365:PRO:HB3	2.27	0.48
1:O:289:HIS:ND1	1:O:365:PRO:HB3	2.29	0.48
1:B:601:ALA:O	1:B:602:LEU:HB2	2.14	0.48
1:T:282:TYR:CE2	1:T:374:PRO:HB2	2.49	0.48
1:O:422:HIS:NE2	1:O:612:VAL:HG22	2.29	0.48
1:J:357:SER:O	1:J:359:HIS:N	2.46	0.48
1:M:657:ASN:HD22	1:M:657:ASN:H	1.59	0.48
1:B:313:ASN:HB3	1:B:682:GLU:HB3	1.95	0.48
1:B:502:THR:HG21	1:G:447:ASN:O	2.13	0.48
1:A:357:SER:O	1:A:359:HIS:N	2.46	0.48
1:H:621:LYS:HB2	1:H:643:PRO:HG3	1.95	0.48
1:I:302:ASN:HD21	1:I:701:TYR:H	1.59	0.48
1:Q:357:SER:O	1:Q:359:HIS:N	2.46	0.48
1:K:520:PRO:HG2	1:K:541:MET:SD	2.53	0.48
1:L:289:HIS:ND1	1:L:365:PRO:HB3	2.28	0.48
1:I:457:GLN:NE2	1:P:498:ASN:HD21	2.11	0.48
1:O:455:SER:O	1:O:457:GLN:N	2.40	0.48
1:I:696:ASN:HD21	1:P:393:PHE:H	1.60	0.48
1:F:282:TYR:CE2	1:F:374:PRO:HB2	2.49	0.48
1:O:282:TYR:CE2	1:O:374:PRO:HB2	2.49	0.48
1:A:422:HIS:NE2	1:A:612:VAL:HG22	2.29	0.48
1:J:422:HIS:NE2	1:J:612:VAL:HG22	2.27	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:313:ASN:HB3	1:M:682:GLU:HB3	1.95	0.48
1:F:621:LYS:HB2	1:F:643:PRO:HG3	1.95	0.48
1:H:447:ASN:O	1:N:502:THR:HG21	2.13	0.48
1:B:352:PRO:HB3	1:G:429:GLN:OE1	2.13	0.48
1:Q:313:ASN:HB3	1:Q:682:GLU:HB3	1.96	0.48
1:N:357:SER:O	1:N:359:HIS:N	2.47	0.48
1:F:357:SER:O	1:F:359:HIS:N	2.47	0.48
1:B:250:PRO:HG2	1:B:252:TYR:CE2	2.49	0.48
1:B:520:PRO:HG2	1:B:541:MET:SD	2.53	0.48
1:Q:250:PRO:HG2	1:Q:252:TYR:CE2	2.49	0.48
1:C:310:LYS:HB2	1:C:684:GLU:O	2.13	0.48
1:H:601:ALA:O	1:H:602:LEU:HB2	2.13	0.48
1:L:310:LYS:HB2	1:L:684:GLU:O	2.14	0.48
1:H:289:HIS:ND1	1:H:365:PRO:HB3	2.28	0.48
1:R:245:ARG:CZ	1:R:367:PRO:HA	2.44	0.48
1:N:282:TYR:CE2	1:N:374:PRO:HB2	2.49	0.48
1:K:282:TYR:CZ	1:K:374:PRO:HB2	2.49	0.48
1:K:272:HIS:CE1	1:K:385:SER:HG	2.31	0.48
1:D:399:PHE:CE2	1:E:693:LYS:HD3	2.49	0.48
1:I:422:HIS:NE2	1:I:612:VAL:HG22	2.28	0.48
1:G:485:ARG:NE	1:G:574:THR:O	2.42	0.48
1:D:621:LYS:HB2	1:D:643:PRO:HG3	1.96	0.48
1:E:357:SER:O	1:E:359:HIS:N	2.46	0.48
1:S:357:SER:O	1:S:359:HIS:N	2.46	0.48
1:G:357:SER:O	1:G:359:HIS:N	2.47	0.48
1:C:601:ALA:O	1:C:602:LEU:HB2	2.13	0.48
1:H:520:PRO:HG2	1:H:541:MET:SD	2.54	0.48
1:G:520:PRO:HG2	1:G:541:MET:SD	2.54	0.48
1:K:601:ALA:O	1:K:602:LEU:HB2	2.13	0.48
1:F:354:VAL:H	1:F:646:GLN:HE22	1.62	0.48
1:S:282:TYR:CE2	1:S:374:PRO:HB2	2.49	0.48
1:R:282:TYR:CE2	1:R:374:PRO:HB2	2.49	0.48
1:N:245:ARG:CZ	1:N:367:PRO:HA	2.44	0.48
1:F:625:THR:HB	1:P:608:GLN:HE21	1.78	0.48
1:O:423:SER:HB2	1:O:730:ARG:HH21	1.78	0.48
1:I:400:PRO:HA	1:R:228:TRP:O	2.14	0.48
1:L:601:ALA:O	1:L:602:LEU:HB2	2.13	0.48
1:L:357:SER:O	1:L:359:HIS:N	2.46	0.48
1:M:250:PRO:HG2	1:M:252:TYR:CE2	2.49	0.48
1:R:289:HIS:ND1	1:R:365:PRO:HB3	2.29	0.48
1:H:422:HIS:NE2	1:H:612:VAL:HG22	2.28	0.48
1:H:282:TYR:CE2	1:H:374:PRO:HB2	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:654:VAL:HG11	1:O:322:LYS:NZ	2.29	0.48
1:B:423:SER:HB2	1:B:730:ARG:HH21	1.77	0.48
1:S:423:SER:HB2	1:S:730:ARG:HH21	1.78	0.48
1:J:368:ALA:HB2	1:R:397:GLU:HG3	1.95	0.48
1:S:313:ASN:HB3	1:S:682:GLU:HB3	1.95	0.48
1:T:250:PRO:HG2	1:T:252:TYR:CE2	2.49	0.48
1:F:696:ASN:HD21	1:I:392:SER:HA	1.79	0.48
1:H:423:SER:HB2	1:H:730:ARG:HH21	1.77	0.48
1:D:262:SER:OG	1:D:272:HIS:HA	2.14	0.48
1:C:282:TYR:CE2	1:C:374:PRO:HB2	2.49	0.48
1:F:608:GLN:NE2	1:I:626:ASP:OD1	2.47	0.48
1:M:654:VAL:HG11	1:T:322:LYS:NZ	2.29	0.48
1:I:621:LYS:HB2	1:I:643:PRO:HG3	1.96	0.48
1:I:254:ASN:ND2	1:I:254:ASN:O	2.47	0.48
1:H:313:ASN:HB3	1:H:682:GLU:HB3	1.95	0.48
1:O:313:ASN:HB3	1:O:682:GLU:HB3	1.95	0.48
1:O:302:ASN:HD21	1:O:701:TYR:H	1.59	0.48
1:R:519:ASN:CB	1:R:520:PRO:CD	2.89	0.48
1:O:310:LYS:HB2	1:O:684:GLU:O	2.14	0.48
1:M:289:HIS:ND1	1:M:365:PRO:HB3	2.29	0.48
1:G:310:LYS:HB2	1:G:684:GLU:O	2.14	0.48
1:N:310:LYS:HB2	1:N:684:GLU:O	2.14	0.48
1:N:608:GLN:NE2	1:Q:626:ASP:OD1	2.47	0.48
1:K:496:ASN:ND2	1:R:461:LEU:HD21	2.29	0.48
1:A:601:ALA:O	1:A:602:LEU:HB2	2.13	0.48
1:O:621:LYS:HB2	1:O:643:PRO:HG3	1.96	0.48
1:B:310:LYS:HB2	1:B:684:GLU:O	2.14	0.47
1:B:498:ASN:HD21	1:G:457:GLN:NE2	2.12	0.47
1:P:282:TYR:CZ	1:P:374:PRO:HB2	2.49	0.47
1:L:282:TYR:CE2	1:L:374:PRO:HB2	2.49	0.47
1:K:625:THR:HB	1:R:608:GLN:HE21	1.78	0.47
1:S:451:ASN:ND2	1:S:460:ASP:OD2	2.38	0.47
1:M:357:SER:O	1:M:359:HIS:N	2.47	0.47
1:A:621:LYS:HB2	1:A:643:PRO:HG3	1.96	0.47
1:S:285:PHE:HB3	1:S:363:LEU:HD13	1.96	0.47
1:J:338:THR:CG2	1:L:406:THR:OG1	2.62	0.47
1:F:520:PRO:HG2	1:F:541:MET:SD	2.54	0.47
1:Q:519:ASN:CB	1:Q:520:PRO:CD	2.89	0.47
1:T:520:PRO:HG2	1:T:541:MET:SD	2.54	0.47
1:H:250:PRO:HG2	1:H:252:TYR:CE2	2.50	0.47
1:F:310:LYS:HB2	1:F:684:GLU:O	2.14	0.47
1:P:310:LYS:HB2	1:P:684:GLU:O	2.13	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:289:HIS:ND1	1:I:365:PRO:HB3	2.29	0.47
1:F:601:ALA:O	1:F:602:LEU:HB2	2.14	0.47
1:Q:450:GLN:NE2	1:Q:457:GLN:HG2	2.29	0.47
1:Q:262:SER:OG	1:Q:272:HIS:HA	2.15	0.47
1:G:282:TYR:CE2	1:G:374:PRO:HB2	2.49	0.47
1:A:282:TYR:CZ	1:A:374:PRO:HB2	2.49	0.47
1:O:272:HIS:CE1	1:O:385:SER:HG	2.30	0.47
1:F:245:ARG:CZ	1:F:367:PRO:HA	2.45	0.47
1:C:245:ARG:CZ	1:C:367:PRO:HA	2.44	0.47
1:Q:254:ASN:ND2	1:Q:254:ASN:O	2.47	0.47
1:B:254:ASN:O	1:B:254:ASN:ND2	2.47	0.47
1:N:579:THR:HB	1:N:593:THR:OG1	2.14	0.47
1:O:579:THR:HB	1:O:593:THR:OG1	2.14	0.47
1:G:621:LYS:HB2	1:G:643:PRO:HG3	1.96	0.47
1:T:621:LYS:HB2	1:T:643:PRO:HG3	1.94	0.47
1:J:313:ASN:HB3	1:J:682:GLU:HB3	1.95	0.47
1:N:621:LYS:HB2	1:N:643:PRO:HG3	1.96	0.47
1:R:250:PRO:HG2	1:R:252:TYR:CE2	2.49	0.47
1:E:250:PRO:HG2	1:E:252:TYR:CE2	2.49	0.47
1:I:519:ASN:CB	1:I:520:PRO:CD	2.89	0.47
1:T:310:LYS:HB2	1:T:684:GLU:O	2.14	0.47
1:E:289:HIS:ND1	1:E:365:PRO:HB3	2.29	0.47
1:G:450:GLN:NE2	1:G:457:GLN:HG2	2.29	0.47
1:R:354:VAL:H	1:R:646:GLN:HE22	1.63	0.47
1:P:262:SER:OG	1:P:272:HIS:HA	2.14	0.47
1:P:245:ARG:CZ	1:P:367:PRO:HA	2.44	0.47
1:D:282:TYR:CE2	1:D:374:PRO:HB2	2.49	0.47
1:I:451:ASN:ND2	1:I:460:ASP:OD2	2.39	0.47
1:M:654:VAL:HG11	1:T:322:LYS:HZ1	1.78	0.47
1:D:422:HIS:NE2	1:D:612:VAL:HG22	2.29	0.47
1:J:250:PRO:HG2	1:J:252:TYR:CE2	2.49	0.47
1:K:254:ASN:O	1:K:254:ASN:ND2	2.47	0.47
1:M:254:ASN:O	1:M:254:ASN:ND2	2.48	0.47
1:N:429:GLN:OE1	1:Q:352:PRO:HB3	2.14	0.47
1:R:357:SER:O	1:R:359:HIS:N	2.46	0.47
1:F:392:SER:OG	1:P:694:ARG:NH1	2.48	0.47
1:I:282:TYR:CZ	1:I:374:PRO:HB2	2.50	0.47
1:C:269:ASN:HA	1:C:272:HIS:HD2	1.80	0.47
1:E:282:TYR:CZ	1:E:374:PRO:HB2	2.49	0.47
1:O:245:ARG:CZ	1:O:367:PRO:HA	2.45	0.47
1:L:450:GLN:NE2	1:L:457:GLN:HG2	2.30	0.47
1:C:621:LYS:HB2	1:C:643:PRO:HG3	1.96	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:285:PHE:HB3	1:D:363:LEU:HD13	1.97	0.47
1:D:579:THR:HB	1:D:593:THR:OG1	2.15	0.47
1:R:285:PHE:HB3	1:R:363:LEU:HD13	1.97	0.47
1:N:302:ASN:HD21	1:N:701:TYR:H	1.60	0.47
1:J:579:THR:HB	1:J:593:THR:OG1	2.15	0.47
1:M:285:PHE:HB3	1:M:363:LEU:HD13	1.96	0.47
1:N:601:ALA:O	1:N:602:LEU:HB2	2.13	0.47
1:Q:601:ALA:O	1:Q:602:LEU:HB2	2.14	0.47
1:D:310:LYS:HB2	1:D:684:GLU:O	2.15	0.47
1:O:450:GLN:NE2	1:O:457:GLN:HG2	2.29	0.47
1:H:608:GLN:HE21	1:N:625:THR:HB	1.79	0.47
1:E:282:TYR:CE2	1:E:374:PRO:HB2	2.49	0.47
1:T:245:ARG:CZ	1:T:367:PRO:HA	2.44	0.47
1:S:422:HIS:NE2	1:S:612:VAL:HG22	2.29	0.47
1:J:450:GLN:NE2	1:J:457:GLN:HG2	2.29	0.47
1:D:450:GLN:NE2	1:D:457:GLN:HG2	2.30	0.47
1:G:297:TRP:NE1	1:G:301:ILE:HD11	2.30	0.47
1:O:285:PHE:HB3	1:O:363:LEU:HD13	1.96	0.47
1:O:254:ASN:ND2	1:O:254:ASN:O	2.48	0.47
1:P:285:PHE:HB3	1:P:363:LEU:HD13	1.97	0.47
1:K:285:PHE:HB3	1:K:363:LEU:HD13	1.96	0.47
1:L:621:LYS:HB2	1:L:643:PRO:HG3	1.95	0.47
1:T:357:SER:O	1:T:359:HIS:N	2.47	0.47
1:O:250:PRO:HG2	1:O:252:TYR:CE2	2.49	0.47
1:Q:310:LYS:HB2	1:Q:684:GLU:O	2.14	0.47
1:I:310:LYS:HB2	1:I:684:GLU:O	2.15	0.47
1:F:282:TYR:CZ	1:F:374:PRO:HB2	2.50	0.47
1:N:282:TYR:CZ	1:N:374:PRO:HB2	2.50	0.47
1:L:282:TYR:CZ	1:L:374:PRO:HB2	2.50	0.47
1:D:282:TYR:CZ	1:D:374:PRO:HB2	2.50	0.47
1:F:422:HIS:NE2	1:F:612:VAL:HG22	2.29	0.47
1:K:245:ARG:CZ	1:K:367:PRO:HA	2.45	0.47
1:C:450:GLN:NE2	1:C:457:GLN:HG2	2.29	0.47
1:B:450:GLN:NE2	1:B:457:GLN:HG2	2.30	0.47
1:S:254:ASN:ND2	1:S:254:ASN:O	2.48	0.47
1:A:254:ASN:O	1:A:254:ASN:ND2	2.48	0.47
1:K:621:LYS:HB2	1:K:643:PRO:HG3	1.97	0.47
1:F:285:PHE:HB3	1:F:363:LEU:HD13	1.97	0.47
1:L:245:ARG:CZ	1:L:367:PRO:HA	2.45	0.47
1:D:250:PRO:HG2	1:D:252:TYR:CE2	2.49	0.47
1:G:298:GLN:HE22	1:N:698:GLU:N	2.03	0.47
1:P:250:PRO:HG2	1:P:252:TYR:CE2	2.50	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:P:450:GLN:NE2	1:P:457:GLN:HG2	2.30	0.47
1:F:289:HIS:ND1	1:F:365:PRO:HB3	2.29	0.47
1:N:262:SER:OG	1:N:272:HIS:HA	2.15	0.47
1:I:262:SER:OG	1:I:272:HIS:HA	2.15	0.47
1:B:262:SER:OG	1:B:272:HIS:HA	2.15	0.47
1:R:450:GLN:NE2	1:R:457:GLN:HG2	2.30	0.47
1:T:262:SER:OG	1:T:272:HIS:HA	2.15	0.47
1:O:282:TYR:CZ	1:O:374:PRO:HB2	2.50	0.47
1:M:282:TYR:CE2	1:M:374:PRO:HB2	2.49	0.47
1:O:269:ASN:HA	1:O:272:HIS:HD2	1.80	0.47
1:S:262:SER:OG	1:S:272:HIS:HA	2.14	0.47
1:P:422:HIS:NE2	1:P:612:VAL:HG22	2.28	0.47
1:M:450:GLN:NE2	1:M:457:GLN:HG2	2.30	0.47
1:S:450:GLN:NE2	1:S:457:GLN:HG2	2.30	0.47
1:R:297:TRP:CG	1:R:614:LEU:HG	2.50	0.47
1:L:579:THR:HB	1:L:593:THR:OG1	2.15	0.47
1:D:254:ASN:ND2	1:D:254:ASN:O	2.48	0.47
1:I:285:PHE:HB3	1:I:363:LEU:HD13	1.96	0.47
1:Q:579:THR:HB	1:Q:593:THR:OG1	2.15	0.47
1:H:606:VAL:HG11	1:N:623:PRO:HB2	1.97	0.47
1:C:705:TYR:O	1:E:388:VAL:HG12	2.14	0.47
1:K:313:ASN:HB3	1:K:682:GLU:HB3	1.95	0.47
1:R:254:ASN:ND2	1:R:254:ASN:O	2.48	0.47
1:H:579:THR:HB	1:H:593:THR:OG1	2.15	0.47
1:G:285:PHE:HB3	1:G:363:LEU:HD13	1.97	0.47
1:K:519:ASN:CB	1:R:475:PRO:HA	2.44	0.47
1:S:250:PRO:HG2	1:S:252:TYR:CE2	2.50	0.47
1:E:601:ALA:O	1:E:602:LEU:HB2	2.13	0.47
1:E:450:GLN:NE2	1:E:457:GLN:HG2	2.29	0.47
1:S:282:TYR:CZ	1:S:374:PRO:HB2	2.50	0.47
1:D:451:ASN:ND2	1:D:460:ASP:OD2	2.38	0.47
1:B:245:ARG:CZ	1:B:367:PRO:HA	2.44	0.47
1:D:245:ARG:CZ	1:D:367:PRO:HA	2.45	0.47
1:A:245:ARG:CZ	1:A:367:PRO:HA	2.44	0.47
1:I:608:GLN:HE21	1:P:625:THR:HB	1.80	0.47
1:T:450:GLN:NE2	1:T:457:GLN:HG2	2.30	0.47
1:K:352:PRO:HB3	1:R:429:GLN:OE1	2.15	0.47
1:T:254:ASN:ND2	1:T:254:ASN:O	2.48	0.47
1:C:254:ASN:O	1:C:254:ASN:ND2	2.47	0.47
1:P:254:ASN:ND2	1:P:254:ASN:O	2.47	0.47
1:S:601:ALA:O	1:S:602:LEU:HB2	2.14	0.47
1:A:297:TRP:CG	1:A:614:LEU:HG	2.50	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:621:LYS:HB2	1:M:643:PRO:HG3	1.96	0.47
1:L:297:TRP:CG	1:L:614:LEU:HG	2.50	0.47
1:K:579:THR:HB	1:K:593:THR:OG1	2.15	0.47
1:S:579:THR:HB	1:S:593:THR:OG1	2.15	0.47
1:C:250:PRO:HG2	1:C:252:TYR:CE2	2.50	0.47
1:F:269:ASN:HA	1:F:272:HIS:HD2	1.80	0.47
1:M:310:LYS:HB2	1:M:684:GLU:O	2.14	0.47
1:A:310:LYS:HB2	1:A:684:GLU:O	2.14	0.47
1:I:282:TYR:CE2	1:I:374:PRO:HB2	2.49	0.47
1:K:262:SER:OG	1:K:272:HIS:HA	2.15	0.47
1:E:245:ARG:CZ	1:E:367:PRO:HA	2.45	0.47
1:Q:245:ARG:CZ	1:Q:367:PRO:HA	2.45	0.47
1:M:245:ARG:CZ	1:M:367:PRO:HA	2.45	0.47
1:R:331:THR:O	1:R:331:THR:HG23	2.14	0.47
1:I:297:TRP:O	1:I:301:ILE:HG13	2.15	0.47
1:M:400:PRO:HA	1:T:228:TRP:O	2.15	0.47
1:C:313:ASN:HB3	1:C:682:GLU:HB3	1.96	0.47
1:H:285:PHE:HB3	1:H:363:LEU:HD13	1.96	0.47
1:C:520:PRO:HG2	1:C:541:MET:SD	2.54	0.47
1:N:250:PRO:HG2	1:N:252:TYR:CE2	2.50	0.47
1:A:250:PRO:HG2	1:A:252:TYR:CE2	2.49	0.47
1:Q:311:ARG:HH21	1:Q:684:GLU:CD	2.19	0.47
1:R:310:LYS:HB2	1:R:684:GLU:O	2.15	0.47
1:C:262:SER:OG	1:C:272:HIS:HA	2.14	0.47
1:G:282:TYR:CZ	1:G:374:PRO:HB2	2.50	0.47
1:O:262:SER:OG	1:O:272:HIS:HA	2.15	0.47
1:R:272:HIS:CE1	1:R:385:SER:HG	2.29	0.47
1:H:269:ASN:HA	1:H:272:HIS:HD2	1.80	0.47
1:G:245:ARG:CZ	1:G:367:PRO:HA	2.45	0.47
1:S:245:ARG:CZ	1:S:367:PRO:HA	2.44	0.47
1:T:285:PHE:HB3	1:T:363:LEU:HD13	1.96	0.47
1:T:297:TRP:NE1	1:T:301:ILE:HD11	2.30	0.47
1:N:285:PHE:HB3	1:N:363:LEU:HD13	1.97	0.47
1:K:250:PRO:HG2	1:K:252:TYR:CE2	2.50	0.46
1:N:694:ARG:NH1	1:Q:392:SER:OG	2.48	0.46
1:N:450:GLN:NE2	1:N:457:GLN:HG2	2.29	0.46
1:O:354:VAL:H	1:O:646:GLN:HE22	1.63	0.46
1:Q:282:TYR:CE2	1:Q:374:PRO:HB2	2.49	0.46
1:M:282:TYR:CZ	1:M:374:PRO:HB2	2.50	0.46
1:R:262:SER:OG	1:R:272:HIS:HA	2.14	0.46
1:A:272:HIS:CE1	1:A:385:SER:HG	2.32	0.46
1:I:245:ARG:CZ	1:I:367:PRO:HA	2.45	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:297:TRP:CG	1:G:614:LEU:HG	2.50	0.46
1:Q:621:LYS:HB2	1:Q:643:PRO:HG3	1.97	0.46
1:C:297:TRP:O	1:C:301:ILE:HG13	2.15	0.46
1:B:623:PRO:HB2	1:G:606:VAL:HG11	1.97	0.46
1:E:285:PHE:HB3	1:E:363:LEU:HD13	1.96	0.46
1:B:297:TRP:CG	1:B:614:LEU:HG	2.50	0.46
1:Q:297:TRP:NE1	1:Q:301:ILE:HD11	2.31	0.46
1:H:310:LYS:HB2	1:H:684:GLU:O	2.14	0.46
1:K:311:ARG:HH21	1:K:684:GLU:CD	2.19	0.46
1:I:311:ARG:HH21	1:I:684:GLU:CD	2.19	0.46
1:H:457:GLN:NE2	1:N:498:ASN:HD21	2.12	0.46
1:H:500:ASN:HB2	1:Q:450:GLN:HB2	1.98	0.46
1:H:630:HIS:N	1:H:631:PRO:HD3	2.30	0.46
1:B:282:TYR:CZ	1:B:374:PRO:HB2	2.50	0.46
1:E:262:SER:OG	1:E:272:HIS:HA	2.15	0.46
1:C:451:ASN:ND2	1:C:460:ASP:OD2	2.38	0.46
1:P:630:HIS:N	1:P:631:PRO:HD3	2.31	0.46
1:A:450:GLN:NE2	1:A:457:GLN:HG2	2.29	0.46
1:K:450:GLN:NE2	1:K:457:GLN:HG2	2.30	0.46
1:C:297:TRP:CG	1:C:614:LEU:HG	2.51	0.46
1:F:297:TRP:CG	1:F:614:LEU:HG	2.50	0.46
1:F:579:THR:HB	1:F:593:THR:OG1	2.15	0.46
1:O:297:TRP:CG	1:O:614:LEU:HG	2.50	0.46
1:E:254:ASN:ND2	1:E:254:ASN:O	2.48	0.46
1:J:621:LYS:HB2	1:J:643:PRO:HG3	1.96	0.46
1:P:297:TRP:CG	1:P:614:LEU:HG	2.51	0.46
1:S:621:LYS:HB2	1:S:643:PRO:HG3	1.96	0.46
1:D:297:TRP:CG	1:D:614:LEU:HG	2.50	0.46
1:J:405:ARG:HG3	1:L:224:ALA:HA	1.96	0.46
1:E:297:TRP:CG	1:E:614:LEU:HG	2.50	0.46
1:I:450:GLN:NE2	1:I:457:GLN:HG2	2.30	0.46
1:D:392:SER:HA	1:E:696:ASN:HD21	1.80	0.46
1:O:450:GLN:HB2	1:T:500:ASN:HB2	1.96	0.46
1:B:272:HIS:CE1	1:B:385:SER:HG	2.32	0.46
1:J:282:TYR:CZ	1:J:374:PRO:HB2	2.49	0.46
1:Q:282:TYR:CZ	1:Q:374:PRO:HB2	2.50	0.46
1:H:262:SER:OG	1:H:272:HIS:HA	2.15	0.46
1:G:262:SER:OG	1:G:272:HIS:HA	2.15	0.46
1:S:272:HIS:CE1	1:S:385:SER:HG	2.30	0.46
1:A:297:TRP:NE1	1:A:301:ILE:HD11	2.31	0.46
1:O:297:TRP:O	1:O:301:ILE:HG13	2.15	0.46
1:A:579:THR:HB	1:A:593:THR:OG1	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:579:THR:HB	1:M:593:THR:OG1	2.15	0.46
1:R:313:ASN:HB3	1:R:682:GLU:HB3	1.96	0.46
1:M:297:TRP:CG	1:M:614:LEU:HG	2.51	0.46
1:J:254:ASN:ND2	1:J:254:ASN:O	2.48	0.46
1:I:667:PHE:HE1	1:I:669:SER:O	1.99	0.46
1:J:297:TRP:CG	1:J:614:LEU:HG	2.51	0.46
1:H:297:TRP:NE1	1:H:301:ILE:HD11	2.30	0.46
1:R:579:THR:HB	1:R:593:THR:OG1	2.15	0.46
1:B:285:PHE:HB3	1:B:363:LEU:HD13	1.97	0.46
1:F:250:PRO:HG2	1:F:252:TYR:CE2	2.49	0.46
1:H:282:TYR:CZ	1:H:374:PRO:HB2	2.49	0.46
1:R:282:TYR:CZ	1:R:374:PRO:HB2	2.50	0.46
1:N:297:TRP:O	1:N:301:ILE:HG13	2.16	0.46
1:F:623:PRO:HB2	1:P:606:VAL:HG11	1.98	0.46
1:E:579:THR:HB	1:E:593:THR:OG1	2.14	0.46
1:B:392:SER:OG	1:G:694:ARG:NH1	2.47	0.46
1:B:392:SER:HA	1:G:696:ASN:HD21	1.80	0.46
1:F:457:GLN:NE2	1:I:498:ASN:HD21	2.13	0.46
1:H:450:GLN:NE2	1:H:457:GLN:HG2	2.30	0.46
1:G:630:HIS:N	1:G:631:PRO:HD3	2.31	0.46
1:D:297:TRP:O	1:D:301:ILE:HG13	2.16	0.46
1:M:297:TRP:O	1:M:301:ILE:HG13	2.16	0.46
1:J:297:TRP:NE1	1:J:301:ILE:HD11	2.31	0.46
1:S:667:PHE:HE1	1:S:669:SER:O	1.99	0.46
1:H:400:PRO:HA	1:O:228:TRP:O	2.15	0.46
1:K:297:TRP:O	1:K:301:ILE:HG13	2.16	0.46
1:N:667:PHE:HE1	1:N:669:SER:O	1.99	0.46
1:B:621:LYS:HB2	1:B:643:PRO:HG3	1.97	0.46
1:A:285:PHE:HB3	1:A:363:LEU:HD13	1.97	0.46
1:E:310:LYS:HB2	1:E:684:GLU:O	2.15	0.46
1:H:694:ARG:NH1	1:N:392:SER:OG	2.49	0.46
1:F:379:LEU:CD1	1:P:433:ARG:HG3	2.43	0.46
1:J:354:VAL:H	1:J:646:GLN:HE22	1.63	0.46
1:L:630:HIS:N	1:L:631:PRO:HD3	2.31	0.46
1:I:297:TRP:CG	1:I:614:LEU:HG	2.51	0.46
1:B:297:TRP:NE1	1:B:301:ILE:HD11	2.31	0.46
1:T:579:THR:HB	1:T:593:THR:OG1	2.15	0.46
1:B:579:THR:HB	1:B:593:THR:OG1	2.15	0.46
1:G:579:THR:HB	1:G:593:THR:OG1	2.15	0.46
1:H:519:ASN:CB	1:Q:475:PRO:HA	2.45	0.46
1:N:696:ASN:HD21	1:Q:392:SER:HA	1.80	0.46
1:F:311:ARG:HH21	1:F:684:GLU:CD	2.19	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:450:GLN:NE2	1:F:457:GLN:HG2	2.30	0.46
1:A:311:ARG:HH21	1:A:684:GLU:CD	2.19	0.46
1:I:654:VAL:HG11	1:R:322:LYS:NZ	2.30	0.46
1:S:366:PHE:HE2	1:S:368:ALA:HB3	1.81	0.46
1:E:297:TRP:NE1	1:E:301:ILE:HD11	2.31	0.46
1:J:285:PHE:HB3	1:J:363:LEU:HD13	1.97	0.46
1:G:667:PHE:HE1	1:G:669:SER:O	1.98	0.46
1:A:400:PRO:HA	1:M:228:TRP:O	2.16	0.46
1:I:579:THR:HB	1:I:593:THR:OG1	2.16	0.46
1:L:285:PHE:HB3	1:L:363:LEU:HD13	1.97	0.46
1:F:634:LEU:HD11	1:P:603:PRO:O	2.16	0.46
1:F:262:SER:OG	1:F:272:HIS:HA	2.15	0.46
1:S:310:LYS:HB2	1:S:684:GLU:O	2.15	0.46
1:K:310:LYS:HB2	1:K:684:GLU:O	2.15	0.46
1:I:354:VAL:H	1:I:646:GLN:HE22	1.62	0.46
1:T:282:TYR:CZ	1:T:374:PRO:HB2	2.50	0.46
1:C:282:TYR:CZ	1:C:374:PRO:HB2	2.50	0.46
1:L:262:SER:OG	1:L:272:HIS:HA	2.15	0.46
1:E:630:HIS:N	1:E:631:PRO:HD3	2.31	0.46
1:R:630:HIS:N	1:R:631:PRO:HD3	2.31	0.46
1:J:366:PHE:HE2	1:J:368:ALA:HB3	1.81	0.46
1:R:297:TRP:NE1	1:R:301:ILE:HD11	2.31	0.46
1:M:667:PHE:HE1	1:M:669:SER:O	1.99	0.46
1:L:254:ASN:ND2	1:L:254:ASN:O	2.48	0.46
1:F:254:ASN:ND2	1:F:254:ASN:O	2.48	0.46
1:F:584:LEU:HD13	1:I:488:ARG:CZ	2.44	0.46
1:H:667:PHE:HE1	1:H:669:SER:O	1.99	0.46
1:J:699:VAL:O	1:J:731:TYR:HB3	2.16	0.46
1:S:590:ASP:CB	1:S:591:PRO:HA	2.46	0.46
1:Q:630:HIS:N	1:Q:631:PRO:HD3	2.31	0.46
1:J:262:SER:OG	1:J:272:HIS:HA	2.15	0.46
1:J:630:HIS:N	1:J:631:PRO:HD3	2.31	0.46
1:C:564:GLU:C	1:C:566:ILE:H	2.20	0.46
1:A:564:GLU:C	1:A:566:ILE:H	2.20	0.46
1:J:245:ARG:CZ	1:J:367:PRO:HA	2.46	0.46
1:F:297:TRP:NE1	1:F:301:ILE:HD11	2.31	0.46
1:D:297:TRP:NE1	1:D:301:ILE:HD11	2.31	0.46
1:M:297:TRP:NE1	1:M:301:ILE:HD11	2.31	0.46
1:C:285:PHE:HB3	1:C:363:LEU:HD13	1.96	0.46
1:C:579:THR:HB	1:C:593:THR:OG1	2.15	0.46
1:R:621:LYS:HB2	1:R:643:PRO:HG3	1.96	0.46
1:B:667:PHE:HE1	1:B:669:SER:O	1.99	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:667:PHE:HE1	1:L:669:SER:O	1.99	0.46
1:G:250:PRO:HG2	1:G:252:TYR:CE2	2.50	0.46
1:P:366:PHE:HE2	1:P:368:ALA:HB3	1.80	0.46
1:D:630:HIS:N	1:D:631:PRO:HD3	2.31	0.46
1:M:566:ILE:HG22	1:M:570:ASN:HB2	1.98	0.46
1:A:297:TRP:O	1:A:301:ILE:HG13	2.16	0.46
1:Q:297:TRP:CG	1:Q:614:LEU:HG	2.50	0.46
1:P:297:TRP:O	1:P:301:ILE:HG13	2.16	0.46
1:K:297:TRP:CG	1:K:614:LEU:HG	2.51	0.46
1:Q:285:PHE:HB3	1:Q:363:LEU:HD13	1.97	0.46
1:F:447:ASN:O	1:I:502:THR:HG21	2.16	0.46
1:M:699:VAL:O	1:M:731:TYR:HB3	2.16	0.46
1:K:519:ASN:CB	1:K:520:PRO:CD	2.90	0.45
1:O:311:ARG:HH21	1:O:684:GLU:CD	2.19	0.45
1:A:262:SER:OG	1:A:272:HIS:HA	2.15	0.45
1:G:366:PHE:HE2	1:G:368:ALA:HB3	1.81	0.45
1:H:399:PHE:CE2	1:Q:693:LYS:HD3	2.51	0.45
1:H:245:ARG:CZ	1:H:367:PRO:HA	2.45	0.45
1:A:654:VAL:HG11	1:M:322:LYS:NZ	2.31	0.45
1:Q:667:PHE:HE1	1:Q:669:SER:O	1.99	0.45
1:L:527:HIS:HB2	1:L:531:LYS:O	2.16	0.45
1:T:354:VAL:H	1:T:646:GLN:HE22	1.62	0.45
1:H:498:ASN:HD21	1:Q:457:GLN:NE2	2.14	0.45
1:M:262:SER:OG	1:M:272:HIS:HA	2.15	0.45
1:D:597:HIS:CE1	1:E:582:VAL:HG13	2.51	0.45
1:T:366:PHE:HE2	1:T:368:ALA:HB3	1.81	0.45
1:G:564:GLU:C	1:G:566:ILE:H	2.20	0.45
1:I:630:HIS:N	1:I:631:PRO:HD3	2.31	0.45
1:H:625:THR:HB	1:Q:608:GLN:HE21	1.80	0.45
1:K:366:PHE:HE2	1:K:368:ALA:HB3	1.81	0.45
1:S:566:ILE:HG22	1:S:570:ASN:HB2	1.99	0.45
1:L:297:TRP:NE1	1:L:301:ILE:HD11	2.31	0.45
1:I:297:TRP:NE1	1:I:301:ILE:HD11	2.31	0.45
1:O:297:TRP:NE1	1:O:301:ILE:HD11	2.31	0.45
1:K:297:TRP:NE1	1:K:301:ILE:HD11	2.31	0.45
1:D:352:PRO:HB3	1:E:429:GLN:OE1	2.17	0.45
1:H:254:ASN:O	1:H:254:ASN:ND2	2.49	0.45
1:P:615:GLN:HE21	1:P:615:GLN:HB2	1.59	0.45
1:L:311:ARG:HH21	1:L:684:GLU:CD	2.20	0.45
1:G:354:VAL:H	1:G:646:GLN:HE22	1.63	0.45
1:G:527:HIS:HB2	1:G:531:LYS:O	2.16	0.45
1:R:311:ARG:HH21	1:R:684:GLU:CD	2.19	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:500:ASN:HB2	1:E:450:GLN:HB2	1.99	0.45
1:N:630:HIS:N	1:N:631:PRO:HD3	2.31	0.45
1:N:566:ILE:HG22	1:N:570:ASN:HB2	1.98	0.45
1:T:630:HIS:N	1:T:631:PRO:HD3	2.30	0.45
1:P:451:ASN:ND2	1:P:460:ASP:OD2	2.38	0.45
1:B:630:HIS:N	1:B:631:PRO:HD3	2.31	0.45
1:D:564:GLU:C	1:D:566:ILE:H	2.20	0.45
1:N:482:PRO:HB3	1:N:600:GLY:HA2	1.98	0.45
1:P:482:PRO:HB3	1:P:600:GLY:HA2	1.99	0.45
1:T:297:TRP:CG	1:T:614:LEU:HG	2.51	0.45
1:Q:297:TRP:O	1:Q:301:ILE:HG13	2.17	0.45
1:J:297:TRP:O	1:J:301:ILE:HG13	2.16	0.45
1:F:429:GLN:OE1	1:I:352:PRO:HB3	2.15	0.45
1:O:667:PHE:HE1	1:O:669:SER:O	1.99	0.45
1:C:667:PHE:HE1	1:C:669:SER:O	1.99	0.45
1:F:488:ARG:CZ	1:P:584:LEU:HD13	2.46	0.45
1:N:447:ASN:O	1:Q:502:THR:HG21	2.16	0.45
1:S:297:TRP:CG	1:S:614:LEU:HG	2.51	0.45
1:D:527:HIS:HB2	1:D:531:LYS:O	2.17	0.45
1:M:269:ASN:HA	1:M:272:HIS:HD2	1.81	0.45
1:H:597:HIS:CE1	1:Q:582:VAL:HG13	2.52	0.45
1:K:630:HIS:N	1:K:631:PRO:HD3	2.31	0.45
1:F:366:PHE:HE2	1:F:368:ALA:HB3	1.82	0.45
1:G:451:ASN:CB	1:G:460:ASP:HB3	2.47	0.45
1:L:451:ASN:CB	1:L:460:ASP:HB3	2.47	0.45
1:D:366:PHE:HE2	1:D:368:ALA:HB3	1.81	0.45
1:H:451:ASN:ND2	1:H:460:ASP:OD2	2.38	0.45
1:B:297:TRP:O	1:B:301:ILE:HG13	2.16	0.45
1:P:297:TRP:NE1	1:P:301:ILE:HD11	2.32	0.45
1:A:667:PHE:HE1	1:A:669:SER:O	1.99	0.45
1:L:316:LEU:HB3	1:L:410:PHE:HB3	1.99	0.45
1:L:366:PHE:HE2	1:L:368:ALA:HB3	1.81	0.45
1:C:311:ARG:HH21	1:C:684:GLU:CD	2.20	0.45
1:B:311:ARG:HH21	1:B:684:GLU:CD	2.19	0.45
1:T:527:HIS:HB2	1:T:531:LYS:O	2.17	0.45
1:S:527:HIS:HB2	1:S:531:LYS:O	2.17	0.45
1:N:311:ARG:HH21	1:N:684:GLU:CD	2.19	0.45
1:A:630:HIS:N	1:A:631:PRO:HD3	2.32	0.45
1:M:630:HIS:N	1:M:631:PRO:HD3	2.31	0.45
1:B:366:PHE:HE2	1:B:368:ALA:HB3	1.81	0.45
1:Q:451:ASN:CB	1:Q:460:ASP:HB3	2.47	0.45
1:L:297:TRP:O	1:L:301:ILE:HG13	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:T:297:TRP:O	1:T:301:ILE:HG13	2.17	0.45
1:E:297:TRP:O	1:E:301:ILE:HG13	2.16	0.45
1:R:699:VAL:O	1:R:731:TYR:HB3	2.17	0.45
1:T:667:PHE:HE1	1:T:669:SER:O	1.99	0.45
1:I:699:VAL:O	1:I:731:TYR:HB3	2.17	0.45
1:G:316:LEU:HB3	1:G:410:PHE:HB3	1.99	0.45
1:F:667:PHE:HE1	1:F:669:SER:O	1.99	0.45
1:E:311:ARG:HH21	1:E:684:GLU:CD	2.20	0.45
1:F:272:HIS:CE1	1:F:385:SER:HG	2.31	0.45
1:P:527:HIS:HB2	1:P:531:LYS:O	2.16	0.45
1:H:582:VAL:O	1:H:582:VAL:HG12	2.17	0.45
1:B:566:ILE:HG22	1:B:570:ASN:HB2	1.99	0.45
1:N:297:TRP:NE1	1:N:301:ILE:HD11	2.31	0.45
1:D:667:PHE:HE1	1:D:669:SER:O	2.00	0.45
1:K:667:PHE:HE1	1:K:669:SER:O	1.99	0.45
1:R:667:PHE:HE1	1:R:669:SER:O	2.00	0.45
1:H:450:GLN:HB2	1:N:500:ASN:HB2	1.99	0.45
1:M:354:VAL:H	1:M:646:GLN:HE22	1.62	0.45
1:R:366:PHE:HE2	1:R:368:ALA:HB3	1.81	0.45
1:O:630:HIS:N	1:O:631:PRO:HD3	2.31	0.45
1:S:451:ASN:CB	1:S:460:ASP:HB3	2.47	0.45
1:I:451:ASN:CB	1:I:460:ASP:HB3	2.47	0.45
1:I:693:LYS:HD3	1:P:399:PHE:CE2	2.52	0.45
1:R:297:TRP:O	1:R:301:ILE:HG13	2.16	0.45
1:F:297:TRP:O	1:F:301:ILE:HG13	2.16	0.45
1:H:297:TRP:CG	1:H:614:LEU:HG	2.51	0.45
1:F:584:LEU:HD13	1:I:488:ARG:NH2	2.32	0.45
1:S:297:TRP:O	1:S:301:ILE:HG13	2.17	0.45
1:H:316:LEU:HB3	1:H:410:PHE:HB3	1.98	0.45
1:A:482:PRO:HB3	1:A:600:GLY:HA2	1.99	0.45
1:E:699:VAL:O	1:E:731:TYR:HB3	2.17	0.45
1:J:667:PHE:HE1	1:J:669:SER:O	1.99	0.45
1:P:579:THR:HB	1:P:593:THR:OG1	2.16	0.45
1:M:311:ARG:HH21	1:M:684:GLU:CD	2.20	0.45
1:Q:527:HIS:HB2	1:Q:531:LYS:O	2.17	0.45
1:E:354:VAL:H	1:E:646:GLN:HE22	1.62	0.45
1:O:527:HIS:HB2	1:O:531:LYS:O	2.17	0.45
1:J:311:ARG:HH21	1:J:684:GLU:CD	2.20	0.45
1:S:630:HIS:N	1:S:631:PRO:HD3	2.31	0.45
1:K:269:ASN:HA	1:K:272:HIS:HD2	1.80	0.45
1:F:566:ILE:HG22	1:F:570:ASN:HB2	1.98	0.45
1:Q:566:ILE:HG22	1:Q:570:ASN:HB2	1.99	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:566:ILE:HG22	1:K:570:ASN:HB2	1.99	0.45
1:C:566:ILE:HG22	1:C:570:ASN:HB2	1.99	0.45
1:T:564:GLU:C	1:T:566:ILE:H	2.20	0.45
1:D:482:PRO:HB3	1:D:600:GLY:HA2	1.99	0.45
1:L:699:VAL:O	1:L:731:TYR:HB3	2.17	0.45
1:M:316:LEU:HB3	1:M:410:PHE:HB3	1.99	0.45
1:A:316:LEU:HB3	1:A:410:PHE:HB3	1.99	0.45
1:J:401:SER:N	1:L:228:TRP:O	2.46	0.45
1:F:498:ASN:HD21	1:P:457:GLN:NE2	2.15	0.45
1:P:311:ARG:HH21	1:P:684:GLU:CD	2.19	0.45
1:M:527:HIS:HB2	1:M:531:LYS:O	2.17	0.45
1:I:527:HIS:HB2	1:I:531:LYS:O	2.17	0.45
1:H:564:GLU:C	1:H:566:ILE:H	2.20	0.45
1:H:566:ILE:HG22	1:H:570:ASN:HB2	1.98	0.45
1:A:366:PHE:HA	1:A:367:PRO:HD3	1.88	0.45
1:L:566:ILE:HG22	1:L:570:ASN:HB2	1.99	0.45
1:A:566:ILE:HG22	1:A:570:ASN:HB2	1.98	0.45
1:J:564:GLU:C	1:J:566:ILE:H	2.20	0.45
1:I:402:GLN:HG3	1:R:227:ASN:OD1	2.17	0.45
1:F:316:LEU:HB3	1:F:410:PHE:HB3	1.99	0.45
1:L:482:PRO:HB3	1:L:600:GLY:HA2	1.99	0.45
1:N:584:LEU:HD13	1:Q:488:ARG:CZ	2.47	0.45
1:E:667:PHE:HE1	1:E:669:SER:O	1.99	0.45
1:C:316:LEU:HB3	1:C:410:PHE:HB3	1.99	0.45
1:B:599:MET:HG3	1:B:600:GLY:N	2.32	0.45
1:D:392:SER:OG	1:E:694:ARG:NH1	2.50	0.45
1:B:269:ASN:HA	1:B:272:HIS:HD2	1.80	0.45
1:I:582:VAL:HG13	1:P:597:HIS:CE1	2.52	0.45
1:T:269:ASN:HA	1:T:272:HIS:HD2	1.80	0.45
1:C:630:HIS:N	1:C:631:PRO:HD3	2.31	0.45
1:N:297:TRP:CG	1:N:614:LEU:HG	2.51	0.45
1:P:316:LEU:HB3	1:P:410:PHE:HB3	1.99	0.45
1:S:311:ARG:HH21	1:S:684:GLU:CD	2.20	0.44
1:H:354:VAL:H	1:H:646:GLN:HE22	1.62	0.44
1:R:355:LEU:HD13	1:R:646:GLN:HE21	1.82	0.44
1:F:630:HIS:N	1:F:631:PRO:HD3	2.31	0.44
1:R:566:ILE:HG22	1:R:570:ASN:HB2	1.99	0.44
1:M:366:PHE:HE2	1:M:368:ALA:HB3	1.81	0.44
1:B:564:GLU:C	1:B:566:ILE:H	2.20	0.44
1:S:564:GLU:C	1:S:566:ILE:H	2.19	0.44
1:O:482:PRO:HB3	1:O:600:GLY:HA2	2.00	0.44
1:M:564:GLU:C	1:M:566:ILE:H	2.20	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:482:PRO:HB3	1:G:600:GLY:HA2	1.99	0.44
1:H:482:PRO:HB3	1:H:600:GLY:HA2	1.99	0.44
1:H:297:TRP:O	1:H:301:ILE:HG13	2.16	0.44
1:S:482:PRO:HB3	1:S:600:GLY:HA2	2.00	0.44
1:M:482:PRO:HB3	1:M:600:GLY:HA2	1.99	0.44
1:T:482:PRO:HB3	1:T:600:GLY:HA2	1.99	0.44
1:I:429:GLN:OE1	1:P:352:PRO:HB3	2.16	0.44
1:N:457:GLN:NE2	1:Q:498:ASN:HD21	2.14	0.44
1:O:694:ARG:NH1	1:T:392:SER:OG	2.50	0.44
1:G:311:ARG:HH21	1:G:684:GLU:CD	2.20	0.44
1:B:354:VAL:H	1:B:646:GLN:HE22	1.62	0.44
1:J:355:LEU:HD13	1:J:646:GLN:HE21	1.82	0.44
1:M:582:VAL:HG12	1:M:582:VAL:O	2.18	0.44
1:S:265:THR:HG23	1:S:267:ALA:H	1.82	0.44
1:A:451:ASN:CB	1:A:460:ASP:HB3	2.47	0.44
1:M:451:ASN:ND2	1:M:460:ASP:OD2	2.38	0.44
1:P:564:GLU:C	1:P:566:ILE:H	2.20	0.44
1:P:566:ILE:HG22	1:P:570:ASN:HB2	1.99	0.44
1:Q:564:GLU:C	1:Q:566:ILE:H	2.20	0.44
1:A:599:MET:HG3	1:A:600:GLY:N	2.33	0.44
1:S:599:MET:HG3	1:S:600:GLY:N	2.33	0.44
1:B:274:PHE:CD2	1:B:387:ALA:HB2	2.52	0.44
1:E:316:LEU:HB3	1:E:410:PHE:HB3	2.00	0.44
1:N:274:PHE:CD2	1:N:387:ALA:HB2	2.52	0.44
1:E:274:PHE:CD2	1:E:387:ALA:HB2	2.52	0.44
1:G:699:VAL:O	1:G:731:TYR:HB3	2.17	0.44
1:F:694:ARG:NH1	1:I:392:SER:OG	2.50	0.44
1:J:527:HIS:HB2	1:J:531:LYS:O	2.17	0.44
1:N:527:HIS:HB2	1:N:531:LYS:O	2.17	0.44
1:O:527:HIS:CE1	1:O:532:ASP:OD1	2.70	0.44
1:N:582:VAL:HG12	1:N:582:VAL:O	2.17	0.44
1:H:597:HIS:NE2	1:Q:582:VAL:HG13	2.32	0.44
1:L:355:LEU:HD13	1:L:646:GLN:HE21	1.83	0.44
1:P:582:VAL:O	1:P:582:VAL:HG12	2.18	0.44
1:D:269:ASN:HA	1:D:272:HIS:HD2	1.79	0.44
1:E:265:THR:HG23	1:E:267:ALA:H	1.83	0.44
1:G:269:ASN:HA	1:G:272:HIS:HD2	1.80	0.44
1:J:590:ASP:CB	1:J:591:PRO:HA	2.47	0.44
1:L:564:GLU:C	1:L:566:ILE:H	2.20	0.44
1:Q:482:PRO:HB3	1:Q:600:GLY:HA2	1.99	0.44
1:E:599:MET:HG3	1:E:600:GLY:N	2.33	0.44
1:C:297:TRP:NE1	1:C:301:ILE:HD11	2.32	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:S:297:TRP:NE1	1:S:301:ILE:HD11	2.32	0.44
1:T:274:PHE:CD2	1:T:387:ALA:HB2	2.52	0.44
1:R:434:LEU:HD11	1:R:736:LEU:HD23	2.00	0.44
1:R:316:LEU:HB3	1:R:410:PHE:HB3	1.99	0.44
1:C:699:VAL:O	1:C:731:TYR:HB3	2.17	0.44
1:P:667:PHE:HE1	1:P:669:SER:O	2.00	0.44
1:T:311:ARG:HH21	1:T:684:GLU:CD	2.19	0.44
1:K:527:HIS:HB2	1:K:531:LYS:O	2.17	0.44
1:B:527:HIS:HB2	1:B:531:LYS:O	2.18	0.44
1:B:355:LEU:HD13	1:B:646:GLN:HE21	1.83	0.44
1:A:527:HIS:HB2	1:A:531:LYS:O	2.17	0.44
1:P:354:VAL:H	1:P:646:GLN:HE22	1.63	0.44
1:K:500:ASN:HB2	1:R:450:GLN:HB2	1.99	0.44
1:K:498:ASN:HD21	1:R:457:GLN:NE2	2.16	0.44
1:I:366:PHE:HE2	1:I:368:ALA:HB3	1.81	0.44
1:C:366:PHE:HE2	1:C:368:ALA:HB3	1.81	0.44
1:O:564:GLU:C	1:O:566:ILE:H	2.21	0.44
1:E:566:ILE:HG22	1:E:570:ASN:HB2	1.98	0.44
1:J:434:LEU:HD11	1:J:736:LEU:HD23	1.99	0.44
1:L:274:PHE:CD2	1:L:387:ALA:HB2	2.53	0.44
1:Q:274:PHE:CD2	1:Q:387:ALA:HB2	2.52	0.44
1:F:705:TYR:O	1:K:388:VAL:HG12	2.18	0.44
1:J:316:LEU:HB3	1:J:410:PHE:HB3	1.99	0.44
1:C:482:PRO:HB3	1:C:600:GLY:HA2	1.99	0.44
1:T:519:ASN:O	1:T:521:GLY:N	2.51	0.44
1:O:696:ASN:HD21	1:T:393:PHE:H	1.60	0.44
1:B:500:ASN:HB2	1:G:450:GLN:HB2	2.00	0.44
1:B:527:HIS:CE1	1:B:532:ASP:OD1	2.70	0.44
1:N:564:GLU:C	1:N:566:ILE:H	2.20	0.44
1:P:451:ASN:CB	1:P:460:ASP:HB3	2.47	0.44
1:T:366:PHE:HA	1:T:367:PRO:HD3	1.87	0.44
1:R:564:GLU:C	1:R:566:ILE:H	2.20	0.44
1:J:566:ILE:HG22	1:J:570:ASN:HB2	2.00	0.44
1:S:366:PHE:HA	1:S:367:PRO:HD3	1.88	0.44
1:G:297:TRP:O	1:G:301:ILE:HG13	2.16	0.44
1:C:599:MET:HG3	1:C:600:GLY:N	2.33	0.44
1:N:606:VAL:HG11	1:Q:623:PRO:HB2	1.99	0.44
1:S:427:HIS:ND1	1:S:736:LEU:HD13	2.33	0.44
1:F:272:HIS:O	1:P:433:ARG:NH2	2.50	0.44
1:H:311:ARG:HH21	1:H:684:GLU:CD	2.20	0.44
1:C:527:HIS:HB2	1:C:531:LYS:O	2.17	0.44
1:E:527:HIS:HB2	1:E:531:LYS:O	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:696:ASN:HD21	1:P:392:SER:HA	1.82	0.44
1:M:355:LEU:HD13	1:M:646:GLN:HE21	1.83	0.44
1:O:355:LEU:HD13	1:O:646:GLN:HE21	1.83	0.44
1:M:265:THR:HG23	1:M:267:ALA:H	1.82	0.44
1:E:582:VAL:O	1:E:582:VAL:HG12	2.17	0.44
1:T:265:THR:HG23	1:T:267:ALA:H	1.83	0.44
1:G:566:ILE:HG22	1:G:570:ASN:HB2	1.99	0.44
1:I:564:GLU:C	1:I:566:ILE:H	2.20	0.44
1:K:564:GLU:C	1:K:566:ILE:H	2.20	0.44
1:H:496:ASN:ND2	1:Q:461:LEU:HD21	2.33	0.44
1:K:699:VAL:O	1:K:731:TYR:HB3	2.17	0.44
1:A:274:PHE:CD2	1:A:387:ALA:HB2	2.53	0.44
1:O:699:VAL:O	1:O:731:TYR:HB3	2.17	0.44
1:D:274:PHE:CD2	1:D:387:ALA:HB2	2.53	0.44
1:T:316:LEU:HB3	1:T:410:PHE:HB3	1.98	0.44
1:I:434:LEU:HD11	1:I:736:LEU:HD23	2.00	0.44
1:J:360:GLN:HG3	1:R:662:PHE:CE2	2.52	0.44
1:H:274:PHE:CD2	1:H:387:ALA:HB2	2.52	0.44
1:M:274:PHE:CD2	1:M:387:ALA:HB2	2.53	0.44
1:R:527:HIS:HB2	1:R:531:LYS:O	2.17	0.44
1:F:582:VAL:HG13	1:I:597:HIS:CE1	2.51	0.44
1:Q:265:THR:HG23	1:Q:267:ALA:H	1.83	0.44
1:O:582:VAL:O	1:O:582:VAL:HG12	2.18	0.44
1:N:355:LEU:HD13	1:N:646:GLN:HE21	1.83	0.44
1:H:265:THR:HG23	1:H:267:ALA:H	1.83	0.44
1:F:564:GLU:C	1:F:566:ILE:H	2.20	0.44
1:O:451:ASN:CB	1:O:460:ASP:HB3	2.47	0.44
1:I:566:ILE:HG22	1:I:570:ASN:HB2	2.00	0.44
1:B:699:VAL:O	1:B:731:TYR:HB3	2.18	0.44
1:I:606:VAL:HG11	1:P:623:PRO:HB2	2.00	0.44
1:Q:699:VAL:O	1:Q:731:TYR:HB3	2.18	0.44
1:H:699:VAL:O	1:H:731:TYR:HB3	2.17	0.44
1:D:316:LEU:HB3	1:D:410:PHE:HB3	1.99	0.44
1:K:599:MET:HG3	1:K:600:GLY:N	2.33	0.44
1:K:316:LEU:HB3	1:K:410:PHE:HB3	1.99	0.44
1:T:699:VAL:O	1:T:731:TYR:HB3	2.18	0.44
1:J:397:GLU:HB2	1:L:367:PRO:CB	2.33	0.44
1:F:582:VAL:HG12	1:F:582:VAL:O	2.18	0.44
1:G:582:VAL:O	1:G:582:VAL:HG12	2.17	0.44
1:J:582:VAL:HG12	1:J:582:VAL:O	2.18	0.44
1:A:582:VAL:O	1:A:582:VAL:HG12	2.18	0.44
1:Q:582:VAL:HG12	1:Q:582:VAL:O	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:597:HIS:NE2	1:E:582:VAL:HG13	2.32	0.44
1:I:582:VAL:O	1:I:582:VAL:HG12	2.18	0.44
1:E:366:PHE:HE2	1:E:368:ALA:HB3	1.82	0.44
1:N:599:MET:HG3	1:N:600:GLY:N	2.33	0.44
1:R:599:MET:HG3	1:R:600:GLY:N	2.33	0.44
1:O:461:LEU:HD21	1:T:496:ASN:ND2	2.33	0.44
1:P:599:MET:HG3	1:P:600:GLY:N	2.33	0.44
1:P:274:PHE:CD2	1:P:387:ALA:HB2	2.53	0.44
1:N:312:LEU:HB3	1:N:414:TYR:HB3	2.00	0.44
1:F:427:HIS:ND1	1:F:736:LEU:HD13	2.33	0.44
1:S:699:VAL:O	1:S:731:TYR:HB3	2.17	0.44
1:S:274:PHE:CD2	1:S:387:ALA:HB2	2.53	0.44
1:J:519:ASN:O	1:J:521:GLY:N	2.51	0.44
1:M:519:ASN:O	1:M:521:GLY:N	2.51	0.44
1:R:527:HIS:CE1	1:R:532:ASP:OD1	2.71	0.44
1:F:527:HIS:HB2	1:F:531:LYS:O	2.18	0.44
1:N:527:HIS:CE1	1:N:532:ASP:OD1	2.71	0.44
1:K:582:VAL:H	1:K:592:ALA:HB3	1.83	0.44
1:A:354:VAL:H	1:A:646:GLN:HE22	1.62	0.44
1:T:590:ASP:CB	1:T:591:PRO:HA	2.46	0.44
1:C:265:THR:HG23	1:C:267:ALA:H	1.83	0.44
1:J:265:THR:HG23	1:J:267:ALA:H	1.82	0.44
1:A:269:ASN:HA	1:A:272:HIS:HD2	1.81	0.44
1:R:451:ASN:CB	1:R:460:ASP:HB3	2.47	0.44
1:N:603:PRO:O	1:Q:634:LEU:HD11	2.18	0.44
1:T:566:ILE:HG22	1:T:570:ASN:HB2	1.99	0.44
1:T:599:MET:HG3	1:T:600:GLY:N	2.33	0.44
1:G:274:PHE:CD2	1:G:387:ALA:HB2	2.53	0.44
1:B:427:HIS:ND1	1:B:736:LEU:HD13	2.33	0.44
1:P:434:LEU:HD11	1:P:736:LEU:HD23	2.00	0.44
1:F:699:VAL:O	1:F:731:TYR:HB3	2.17	0.44
1:O:427:HIS:ND1	1:O:736:LEU:HD13	2.33	0.44
1:J:599:MET:HG3	1:J:600:GLY:N	2.33	0.44
1:D:311:ARG:HH21	1:D:684:GLU:CD	2.19	0.43
1:G:355:LEU:HD13	1:G:646:GLN:HE21	1.83	0.43
1:D:355:LEU:HD13	1:D:646:GLN:HE21	1.83	0.43
1:S:582:VAL:HG12	1:S:582:VAL:O	2.18	0.43
1:B:582:VAL:O	1:B:582:VAL:HG12	2.18	0.43
1:C:355:LEU:HD13	1:C:646:GLN:HE21	1.84	0.43
1:Q:269:ASN:HA	1:Q:272:HIS:HD2	1.79	0.43
1:D:265:THR:HG23	1:D:267:ALA:H	1.84	0.43
1:A:265:THR:HG23	1:A:267:ALA:H	1.82	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:451:ASN:CB	1:E:460:ASP:HB3	2.47	0.43
1:Q:599:MET:HG3	1:Q:600:GLY:N	2.33	0.43
1:F:482:PRO:HB3	1:F:600:GLY:HA2	2.00	0.43
1:F:488:ARG:NH2	1:P:584:LEU:HD13	2.33	0.43
1:Q:316:LEU:HB3	1:Q:410:PHE:HB3	1.99	0.43
1:B:316:LEU:HB3	1:B:410:PHE:HB3	1.98	0.43
1:K:274:PHE:CD2	1:K:387:ALA:HB2	2.52	0.43
1:H:527:HIS:HB2	1:H:531:LYS:O	2.17	0.43
1:S:527:HIS:CE1	1:S:532:ASP:OD1	2.71	0.43
1:Q:355:LEU:HD13	1:Q:646:GLN:HE21	1.83	0.43
1:T:582:VAL:HG12	1:T:582:VAL:O	2.18	0.43
1:I:590:ASP:CB	1:I:591:PRO:HA	2.46	0.43
1:O:366:PHE:HE2	1:O:368:ALA:HB3	1.82	0.43
1:D:451:ASN:CB	1:D:460:ASP:HB3	2.47	0.43
1:N:366:PHE:HE2	1:N:368:ALA:HB3	1.81	0.43
1:F:626:ASP:OD1	1:P:608:GLN:NE2	2.51	0.43
1:I:482:PRO:HB3	1:I:600:GLY:HA2	2.01	0.43
1:B:482:PRO:HB3	1:B:600:GLY:HA2	1.99	0.43
1:E:427:HIS:ND1	1:E:736:LEU:HD13	2.33	0.43
1:J:274:PHE:CD2	1:J:387:ALA:HB2	2.52	0.43
1:H:312:LEU:HB3	1:H:414:TYR:HB3	2.01	0.43
1:O:316:LEU:HB3	1:O:410:PHE:HB3	1.99	0.43
1:D:699:VAL:O	1:D:731:TYR:HB3	2.17	0.43
1:G:427:HIS:ND1	1:G:736:LEU:HD13	2.33	0.43
1:K:519:ASN:O	1:K:521:GLY:N	2.52	0.43
1:J:342:GLN:OE1	1:L:228:TRP:CE3	2.71	0.43
1:H:582:VAL:HG13	1:N:597:HIS:CE1	2.54	0.43
1:N:582:VAL:H	1:N:592:ALA:HB3	1.84	0.43
1:L:265:THR:HG23	1:L:267:ALA:H	1.83	0.43
1:G:265:THR:HG23	1:G:267:ALA:H	1.82	0.43
1:F:599:MET:HG3	1:F:600:GLY:N	2.33	0.43
1:G:599:MET:HG3	1:G:600:GLY:N	2.32	0.43
1:H:599:MET:HG3	1:H:600:GLY:N	2.33	0.43
1:K:312:LEU:HB3	1:K:414:TYR:HB3	2.00	0.43
1:C:585:GLN:O	1:C:587:SER:N	2.51	0.43
1:N:434:LEU:HD11	1:N:736:LEU:HD23	2.01	0.43
1:K:585:GLN:O	1:K:587:SER:N	2.52	0.43
1:D:519:ASN:O	1:D:521:GLY:N	2.51	0.43
1:D:393:PHE:H	1:E:696:ASN:HD21	1.60	0.43
1:B:597:HIS:CE1	1:G:582:VAL:HG13	2.53	0.43
1:D:582:VAL:O	1:D:582:VAL:HG12	2.18	0.43
1:P:582:VAL:H	1:P:592:ALA:HB3	1.84	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:584:LEU:HD13	1:P:488:ARG:CZ	2.48	0.43
1:Q:366:PHE:HE2	1:Q:368:ALA:HB3	1.82	0.43
1:O:566:ILE:HG22	1:O:570:ASN:HB2	1.99	0.43
1:O:599:MET:HG3	1:O:600:GLY:N	2.33	0.43
1:D:566:ILE:HG22	1:D:570:ASN:HB2	1.99	0.43
1:E:482:PRO:HB3	1:E:600:GLY:HA2	1.99	0.43
1:J:367:PRO:HB2	1:R:397:GLU:CB	2.48	0.43
1:M:599:MET:HG3	1:M:600:GLY:N	2.33	0.43
1:P:427:HIS:ND1	1:P:736:LEU:HD13	2.33	0.43
1:T:434:LEU:HD11	1:T:736:LEU:HD23	2.00	0.43
1:C:274:PHE:CD2	1:C:387:ALA:HB2	2.53	0.43
1:S:312:LEU:HB3	1:S:414:TYR:HB3	2.01	0.43
1:M:312:LEU:HB3	1:M:414:TYR:HB3	2.01	0.43
1:Q:434:LEU:HD11	1:Q:736:LEU:HD23	2.00	0.43
1:P:585:GLN:O	1:P:587:SER:N	2.51	0.43
1:J:324:VAL:O	1:J:672:THR:HG23	2.19	0.43
1:I:316:LEU:HB3	1:I:410:PHE:HB3	2.00	0.43
1:A:699:VAL:O	1:A:731:TYR:HB3	2.17	0.43
1:M:388:VAL:HG12	1:T:705:TYR:O	2.19	0.43
1:R:274:PHE:CD2	1:R:387:ALA:HB2	2.53	0.43
1:C:519:ASN:O	1:C:521:GLY:N	2.52	0.43
1:F:392:SER:HA	1:P:696:ASN:HD21	1.83	0.43
1:L:527:HIS:CE1	1:L:532:ASP:OD1	2.72	0.43
1:K:355:LEU:HD13	1:K:646:GLN:HE21	1.83	0.43
1:P:355:LEU:HD13	1:P:646:GLN:HE21	1.83	0.43
1:R:582:VAL:H	1:R:592:ALA:HB3	1.83	0.43
1:H:355:LEU:HD13	1:H:646:GLN:HE21	1.83	0.43
1:N:582:VAL:HG13	1:Q:597:HIS:CE1	2.53	0.43
1:E:265:THR:C	1:E:267:ALA:H	2.22	0.43
1:F:288:PHE:CD2	1:F:618:ILE:HG12	2.53	0.43
1:C:451:ASN:CB	1:C:460:ASP:HB3	2.47	0.43
1:E:564:GLU:C	1:E:566:ILE:H	2.20	0.43
1:S:434:LEU:HD11	1:S:736:LEU:HD23	2.00	0.43
1:I:427:HIS:ND1	1:I:736:LEU:HD13	2.33	0.43
1:S:316:LEU:HB3	1:S:410:PHE:HB3	2.00	0.43
1:Q:228:TRP:O	1:T:400:PRO:HA	2.18	0.43
1:C:324:VAL:O	1:C:672:THR:HG23	2.19	0.43
1:F:350:GLN:NE2	1:P:691:ASN:HD21	2.17	0.43
1:P:312:LEU:HB3	1:P:414:TYR:HB3	2.00	0.43
1:R:585:GLN:O	1:R:587:SER:N	2.52	0.43
1:O:298:GLN:HE22	1:Q:698:GLU:N	2.03	0.43
1:F:265:THR:HG23	1:F:267:ALA:H	1.83	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:265:THR:C	1:F:267:ALA:H	2.22	0.43
1:T:527:HIS:CE1	1:T:532:ASP:OD1	2.72	0.43
1:F:527:HIS:CE1	1:F:532:ASP:OD1	2.71	0.43
1:M:527:HIS:CE1	1:M:532:ASP:OD1	2.72	0.43
1:H:433:ARG:NH2	1:N:272:HIS:O	2.51	0.43
1:E:366:PHE:HA	1:E:367:PRO:HD3	1.88	0.43
1:S:585:GLN:O	1:S:587:SER:N	2.52	0.43
1:O:274:PHE:CD2	1:O:387:ALA:HB2	2.53	0.43
1:N:699:VAL:O	1:N:731:TYR:HB3	2.18	0.43
1:K:427:HIS:ND1	1:K:736:LEU:HD13	2.34	0.43
1:N:316:LEU:HB3	1:N:410:PHE:HB3	1.99	0.43
1:Q:585:GLN:O	1:Q:587:SER:N	2.52	0.43
1:F:274:PHE:CD2	1:F:387:ALA:HB2	2.53	0.43
1:F:519:ASN:O	1:F:521:GLY:N	2.52	0.43
1:C:527:HIS:CE1	1:C:532:ASP:OD1	2.71	0.43
1:I:269:ASN:HA	1:I:272:HIS:HD2	1.80	0.43
1:F:355:LEU:HD13	1:F:646:GLN:HE21	1.83	0.43
1:O:265:THR:HG23	1:O:267:ALA:H	1.83	0.43
1:K:265:THR:HG23	1:K:267:ALA:H	1.82	0.43
1:M:451:ASN:CB	1:M:460:ASP:HB3	2.47	0.43
1:E:322:LYS:NZ	1:P:654:VAL:HG11	2.34	0.43
1:K:288:PHE:CD2	1:K:618:ILE:HG12	2.54	0.43
1:R:482:PRO:HB3	1:R:600:GLY:HA2	2.00	0.43
1:L:599:MET:HG3	1:L:600:GLY:N	2.33	0.43
1:B:434:LEU:HD11	1:B:736:LEU:HD23	2.01	0.43
1:Q:427:HIS:ND1	1:Q:736:LEU:HD13	2.34	0.43
1:F:585:GLN:O	1:F:587:SER:N	2.52	0.43
1:H:434:LEU:HD11	1:H:736:LEU:HD23	2.01	0.43
1:M:483:CYS:HB2	1:M:571:PRO:HG3	2.01	0.43
1:I:274:PHE:CD2	1:I:387:ALA:HB2	2.53	0.43
1:B:585:GLN:O	1:B:587:SER:N	2.52	0.43
1:T:324:VAL:O	1:T:672:THR:HG23	2.19	0.43
1:M:434:LEU:HD11	1:M:736:LEU:HD23	2.00	0.43
1:B:312:LEU:HB3	1:B:414:TYR:HB3	2.00	0.43
1:P:324:VAL:O	1:P:672:THR:HG23	2.19	0.43
1:J:694:ARG:NH2	1:J:696:ASN:OD1	2.51	0.43
1:N:519:ASN:O	1:N:521:GLY:N	2.51	0.43
1:K:527:HIS:CE1	1:K:532:ASP:OD1	2.71	0.43
1:K:582:VAL:HG12	1:K:582:VAL:O	2.17	0.43
1:L:582:VAL:H	1:L:592:ALA:HB3	1.84	0.43
1:J:265:THR:C	1:J:267:ALA:H	2.22	0.43
1:L:265:THR:C	1:L:267:ALA:H	2.22	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:482:PRO:HB3	1:K:600:GLY:HA2	2.00	0.43
1:T:427:HIS:ND1	1:T:736:LEU:HD13	2.34	0.43
1:G:585:GLN:O	1:G:587:SER:N	2.52	0.43
1:F:606:VAL:HG11	1:I:623:PRO:HB2	2.00	0.43
1:I:388:VAL:HG12	1:R:705:TYR:O	2.18	0.43
1:O:312:LEU:HB3	1:O:414:TYR:HB3	2.01	0.43
1:G:519:ASN:O	1:G:521:GLY:N	2.51	0.43
1:B:519:ASN:CB	1:G:475:PRO:HA	2.48	0.43
1:J:527:HIS:CE1	1:J:532:ASP:OD1	2.71	0.43
1:F:582:VAL:H	1:F:592:ALA:HB3	1.84	0.43
1:G:582:VAL:H	1:G:592:ALA:HB3	1.83	0.43
1:C:582:VAL:HG12	1:C:582:VAL:O	2.18	0.43
1:B:582:VAL:H	1:B:592:ALA:HB3	1.83	0.43
1:H:582:VAL:H	1:H:592:ALA:HB3	1.83	0.43
1:R:269:ASN:HA	1:R:272:HIS:HD2	1.80	0.43
1:M:590:ASP:CB	1:M:591:PRO:HA	2.47	0.43
1:I:599:MET:HG3	1:I:600:GLY:N	2.33	0.43
1:F:603:PRO:O	1:I:634:LEU:HD11	2.19	0.43
1:N:580:VAL:HG23	1:Q:485:ARG:O	2.19	0.43
1:D:599:MET:HG3	1:D:600:GLY:N	2.33	0.43
1:O:434:LEU:HD11	1:O:736:LEU:HD23	2.00	0.43
1:I:491:LYS:HG3	1:I:533:LYS:O	2.19	0.43
1:G:324:VAL:O	1:G:672:THR:HG23	2.19	0.43
1:I:585:GLN:O	1:I:587:SER:N	2.52	0.43
1:B:634:LEU:HD11	1:G:603:PRO:O	2.19	0.43
1:G:705:TYR:O	1:Q:388:VAL:HG12	2.18	0.43
1:J:585:GLN:O	1:J:587:SER:N	2.52	0.43
1:L:427:HIS:ND1	1:L:736:LEU:HD13	2.34	0.43
1:E:519:ASN:O	1:E:521:GLY:N	2.52	0.43
1:E:355:LEU:HD13	1:E:646:GLN:HE21	1.83	0.43
1:R:582:VAL:HG12	1:R:582:VAL:O	2.18	0.43
1:I:265:THR:HG23	1:I:267:ALA:H	1.83	0.43
1:L:354:VAL:H	1:L:646:GLN:HE22	1.64	0.43
1:I:433:ARG:NH2	1:P:272:HIS:O	2.52	0.43
1:J:269:ASN:HA	1:J:272:HIS:HD2	1.80	0.43
1:G:451:ASN:ND2	1:G:460:ASP:OD2	2.38	0.43
1:J:451:ASN:CB	1:J:460:ASP:HB3	2.47	0.43
1:S:441:GLN:HE22	1:S:474:GLN:HB3	1.84	0.43
1:L:434:LEU:HD11	1:L:736:LEU:HD23	2.00	0.43
1:D:434:LEU:HD11	1:D:736:LEU:HD23	2.00	0.43
1:H:691:ASN:HD21	1:N:350:GLN:NE2	2.17	0.43
1:E:298:GLN:HE22	1:I:698:GLU:N	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:298:GLN:HE22	1:R:698:GLU:N	2.02	0.42
1:A:519:ASN:O	1:A:521:GLY:N	2.52	0.42
1:I:450:GLN:HB2	1:P:500:ASN:HB2	1.99	0.42
1:N:269:ASN:HA	1:N:272:HIS:HD2	1.80	0.42
1:I:694:ARG:NH1	1:P:392:SER:OG	2.51	0.42
1:A:582:VAL:H	1:A:592:ALA:HB3	1.83	0.42
1:N:288:PHE:CD2	1:N:618:ILE:HG12	2.54	0.42
1:R:265:THR:HG23	1:R:267:ALA:H	1.83	0.42
1:Q:322:LYS:NZ	1:T:654:VAL:HG11	2.33	0.42
1:B:322:LYS:NZ	1:C:654:VAL:HG11	2.34	0.42
1:F:434:LEU:HD11	1:F:736:LEU:HD23	2.01	0.42
1:A:585:GLN:O	1:A:587:SER:N	2.52	0.42
1:P:699:VAL:O	1:P:731:TYR:HB3	2.19	0.42
1:H:585:GLN:O	1:H:587:SER:N	2.52	0.42
1:C:427:HIS:ND1	1:C:736:LEU:HD13	2.34	0.42
1:O:324:VAL:O	1:O:672:THR:HG23	2.19	0.42
1:K:483:CYS:HB2	1:K:571:PRO:HG3	2.01	0.42
1:R:324:VAL:O	1:R:672:THR:HG23	2.19	0.42
1:H:519:ASN:O	1:H:521:GLY:N	2.52	0.42
1:B:519:ASN:O	1:B:521:GLY:N	2.52	0.42
1:S:519:ASN:O	1:S:521:GLY:N	2.52	0.42
1:R:519:ASN:O	1:R:521:GLY:N	2.52	0.42
1:H:393:PHE:H	1:Q:696:ASN:HD21	1.62	0.42
1:P:527:HIS:CE1	1:P:532:ASP:OD1	2.72	0.42
1:Q:527:HIS:CE1	1:Q:532:ASP:OD1	2.72	0.42
1:S:355:LEU:HD13	1:S:646:GLN:HE21	1.83	0.42
1:M:265:THR:C	1:M:267:ALA:H	2.22	0.42
1:O:582:VAL:H	1:O:592:ALA:HB3	1.83	0.42
1:L:582:VAL:HG12	1:L:582:VAL:O	2.18	0.42
1:B:265:THR:HG23	1:B:267:ALA:H	1.82	0.42
1:D:272:HIS:CE1	1:D:385:SER:HG	2.36	0.42
1:P:265:THR:HG23	1:P:267:ALA:H	1.83	0.42
1:N:451:ASN:ND2	1:N:460:ASP:OD2	2.38	0.42
1:H:366:PHE:HE2	1:H:368:ALA:HB3	1.81	0.42
1:M:288:PHE:CD2	1:M:618:ILE:HG12	2.54	0.42
1:K:441:GLN:HE22	1:K:474:GLN:HB3	1.84	0.42
1:J:366:PHE:HA	1:J:367:PRO:HD3	1.88	0.42
1:N:427:HIS:ND1	1:N:736:LEU:HD13	2.34	0.42
1:F:324:VAL:O	1:F:672:THR:HG23	2.19	0.42
1:Q:705:TYR:O	1:T:388:VAL:HG12	2.19	0.42
1:B:483:CYS:HB2	1:B:571:PRO:HG3	2.01	0.42
1:E:585:GLN:O	1:E:587:SER:N	2.52	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:527:HIS:CE1	1:H:532:ASP:OD1	2.72	0.42
1:E:527:HIS:CE1	1:E:532:ASP:OD1	2.72	0.42
1:I:527:HIS:CE1	1:I:532:ASP:OD1	2.72	0.42
1:J:517:ILE:HG22	1:J:518:ILE:N	2.35	0.42
1:B:272:HIS:O	1:G:433:ARG:NH2	2.52	0.42
1:I:582:VAL:HG13	1:P:597:HIS:NE2	2.34	0.42
1:A:265:THR:C	1:A:267:ALA:H	2.22	0.42
1:A:288:PHE:CD2	1:A:618:ILE:HG12	2.54	0.42
1:D:496:ASN:ND2	1:E:461:LEU:HD21	2.34	0.42
1:R:427:HIS:ND1	1:R:736:LEU:HD13	2.34	0.42
1:K:482:PRO:HG2	1:R:603:PRO:HD3	2.01	0.42
1:G:434:LEU:HD11	1:G:736:LEU:HD23	2.01	0.42
1:D:427:HIS:ND1	1:D:736:LEU:HD13	2.34	0.42
1:C:434:LEU:HD11	1:C:736:LEU:HD23	2.00	0.42
1:F:502:THR:HG21	1:P:447:ASN:O	2.18	0.42
1:R:615:GLN:HB2	1:R:615:GLN:HE21	1.58	0.42
1:N:585:GLN:O	1:N:587:SER:N	2.52	0.42
1:B:324:VAL:O	1:B:672:THR:HG23	2.20	0.42
1:A:434:LEU:HD11	1:A:736:LEU:HD23	2.01	0.42
1:D:312:LEU:HB3	1:D:414:TYR:HB3	2.01	0.42
1:L:483:CYS:HB2	1:L:571:PRO:HG3	2.01	0.42
1:T:585:GLN:O	1:T:587:SER:N	2.52	0.42
1:O:519:ASN:O	1:O:521:GLY:N	2.52	0.42
1:H:441:GLN:HE22	1:H:474:GLN:HB3	1.85	0.42
1:J:671:ILE:HD11	1:L:674:TYR:HH	1.79	0.42
1:I:355:LEU:HD13	1:I:646:GLN:HE21	1.84	0.42
1:H:433:ARG:HG3	1:N:379:LEU:CD1	2.46	0.42
1:A:355:LEU:HD13	1:A:646:GLN:HE21	1.83	0.42
1:C:354:VAL:H	1:C:646:GLN:HE22	1.63	0.42
1:D:582:VAL:H	1:D:592:ALA:HB3	1.84	0.42
1:Q:582:VAL:H	1:Q:592:ALA:HB3	1.84	0.42
1:S:517:ILE:HG22	1:S:518:ILE:N	2.35	0.42
1:G:288:PHE:CD2	1:G:618:ILE:HG12	2.54	0.42
1:R:288:PHE:CD2	1:R:618:ILE:HG12	2.54	0.42
1:T:441:GLN:HE22	1:T:474:GLN:HB3	1.85	0.42
1:J:427:HIS:ND1	1:J:736:LEU:HD13	2.34	0.42
1:M:427:HIS:ND1	1:M:736:LEU:HD13	2.34	0.42
1:L:312:LEU:HB3	1:L:414:TYR:HB3	2.01	0.42
1:J:483:CYS:HB2	1:J:571:PRO:HG3	2.02	0.42
1:S:491:LYS:HG3	1:S:533:LYS:O	2.19	0.42
1:Q:483:CYS:HB2	1:Q:571:PRO:HG3	2.02	0.42
1:Q:519:ASN:O	1:Q:521:GLY:N	2.51	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:519:ASN:O	1:L:521:GLY:N	2.52	0.42
1:Q:354:VAL:H	1:Q:646:GLN:HE22	1.62	0.42
1:N:265:THR:C	1:N:267:ALA:H	2.22	0.42
1:S:582:VAL:H	1:S:592:ALA:HB3	1.83	0.42
1:Q:265:THR:C	1:Q:267:ALA:H	2.23	0.42
1:F:597:HIS:CE1	1:P:582:VAL:HG13	2.54	0.42
1:I:288:PHE:CD2	1:I:618:ILE:HG12	2.54	0.42
1:Q:363:LEU:HA	1:Q:364:PRO:HD3	1.94	0.42
1:E:434:LEU:HD11	1:E:736:LEU:HD23	2.00	0.42
1:F:350:GLN:HE21	1:P:691:ASN:ND2	2.18	0.42
1:M:585:GLN:O	1:M:587:SER:N	2.52	0.42
1:T:483:CYS:HB2	1:T:571:PRO:HG3	2.01	0.42
1:I:324:VAL:O	1:I:672:THR:HG23	2.19	0.42
1:D:585:GLN:O	1:D:587:SER:N	2.52	0.42
1:C:312:LEU:HB3	1:C:414:TYR:HB3	2.01	0.42
1:J:228:TRP:N	1:R:403:MET:HG3	2.35	0.42
1:P:519:ASN:O	1:P:521:GLY:N	2.52	0.42
1:I:519:ASN:O	1:I:521:GLY:N	2.52	0.42
1:G:441:GLN:HE22	1:G:474:GLN:HB3	1.85	0.42
1:T:355:LEU:HD13	1:T:646:GLN:HE21	1.83	0.42
1:T:582:VAL:H	1:T:592:ALA:HB3	1.84	0.42
1:S:354:VAL:H	1:S:646:GLN:HE22	1.63	0.42
1:P:590:ASP:CB	1:P:591:PRO:HA	2.46	0.42
1:D:265:THR:C	1:D:267:ALA:H	2.22	0.42
1:K:553:THR:HG23	1:K:557:ASN:CB	2.49	0.42
1:S:553:THR:HG23	1:S:557:ASN:CB	2.49	0.42
1:B:451:ASN:CB	1:B:460:ASP:HB3	2.47	0.42
1:A:441:GLN:HE22	1:A:474:GLN:HB3	1.85	0.42
1:J:482:PRO:HB3	1:J:600:GLY:HA2	2.00	0.42
1:A:483:CYS:HB2	1:A:571:PRO:HG3	2.02	0.42
1:A:324:VAL:O	1:A:672:THR:HG23	2.20	0.42
1:E:615:GLN:HB2	1:E:615:GLN:HE21	1.58	0.42
1:J:615:GLN:HB2	1:J:615:GLN:HE21	1.58	0.42
1:I:483:CYS:HB2	1:I:571:PRO:HG3	2.02	0.42
1:O:585:GLN:O	1:O:587:SER:N	2.52	0.42
1:H:603:PRO:O	1:N:634:LEU:HD11	2.20	0.42
1:J:705:TYR:CA	1:R:389:GLY:HA3	2.38	0.42
1:N:475:PRO:HA	1:Q:519:ASN:CB	2.48	0.42
1:N:694:ARG:NH2	1:N:696:ASN:OD1	2.53	0.42
1:H:392:SER:OG	1:Q:694:ARG:NH1	2.52	0.42
1:O:457:GLN:NE2	1:T:498:ASN:HD21	2.18	0.42
1:G:517:ILE:HG22	1:G:518:ILE:N	2.35	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:527:HIS:CE1	1:D:532:ASP:OD1	2.73	0.42
1:N:354:VAL:H	1:N:646:GLN:HE22	1.65	0.42
1:E:582:VAL:H	1:E:592:ALA:HB3	1.83	0.42
1:H:630:HIS:HE1	1:N:626:ASP:O	2.02	0.42
1:J:553:THR:HG23	1:J:557:ASN:CB	2.49	0.42
1:K:265:THR:C	1:K:267:ALA:H	2.23	0.42
1:T:451:ASN:CB	1:T:460:ASP:HB3	2.47	0.42
1:S:288:PHE:CD2	1:S:618:ILE:HG12	2.54	0.42
1:J:441:GLN:HE22	1:J:474:GLN:HB3	1.85	0.42
1:D:705:TYR:O	1:L:388:VAL:HG12	2.19	0.42
1:M:324:VAL:O	1:M:672:THR:HG23	2.19	0.42
1:N:324:VAL:O	1:N:672:THR:HG23	2.19	0.42
1:C:615:GLN:HB2	1:C:615:GLN:HE21	1.57	0.42
1:C:483:CYS:HB2	1:C:571:PRO:HG3	2.02	0.42
1:D:483:CYS:HB2	1:D:571:PRO:HG3	2.02	0.42
1:P:491:LYS:HG3	1:P:533:LYS:O	2.20	0.42
1:K:324:VAL:O	1:K:672:THR:HG23	2.19	0.42
1:L:585:GLN:O	1:L:587:SER:N	2.52	0.42
1:O:441:GLN:HE22	1:O:474:GLN:HB3	1.85	0.42
1:F:517:ILE:HG22	1:F:518:ILE:N	2.35	0.42
1:B:265:THR:C	1:B:267:ALA:H	2.23	0.42
1:C:517:ILE:HG22	1:C:518:ILE:N	2.34	0.42
1:R:265:THR:C	1:R:267:ALA:H	2.22	0.42
1:F:451:ASN:CB	1:F:460:ASP:HB3	2.47	0.42
1:L:288:PHE:CD2	1:L:618:ILE:HG12	2.55	0.42
1:B:288:PHE:CD2	1:B:618:ILE:HG12	2.55	0.42
1:D:288:PHE:CD2	1:D:618:ILE:HG12	2.55	0.42
1:T:435:MET:HG2	1:T:474:GLN:OE1	2.20	0.42
1:N:584:LEU:HD13	1:Q:488:ARG:NH2	2.34	0.42
1:O:603:PRO:HD3	1:T:482:PRO:HG2	2.00	0.42
1:A:427:HIS:ND1	1:A:736:LEU:HD13	2.34	0.42
1:G:312:LEU:HB3	1:G:414:TYR:HB3	2.01	0.42
1:P:483:CYS:HB2	1:P:571:PRO:HG3	2.02	0.42
1:I:312:LEU:HB3	1:I:414:TYR:HB3	2.01	0.42
1:F:388:VAL:HG12	1:H:705:TYR:O	2.20	0.42
1:F:483:CYS:HB2	1:F:571:PRO:HG3	2.02	0.42
1:L:324:VAL:O	1:L:672:THR:HG23	2.19	0.42
1:I:441:GLN:O	1:I:465:ARG:HD2	2.20	0.42
1:P:441:GLN:HE22	1:P:474:GLN:HB3	1.85	0.42
1:A:527:HIS:CE1	1:A:532:ASP:OD1	2.73	0.42
1:K:517:ILE:HG22	1:K:518:ILE:N	2.35	0.42
1:M:582:VAL:H	1:M:592:ALA:HB3	1.84	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:582:VAL:H	1:I:592:ALA:HB3	1.84	0.42
1:P:265:THR:C	1:P:267:ALA:H	2.22	0.42
1:O:265:THR:C	1:O:267:ALA:H	2.22	0.42
1:K:441:GLN:O	1:K:465:ARG:HD2	2.20	0.42
1:H:482:PRO:HG2	1:Q:603:PRO:HD3	2.02	0.42
1:H:427:HIS:ND1	1:H:736:LEU:HD13	2.34	0.42
1:A:615:GLN:HE21	1:A:615:GLN:HB2	1.57	0.42
1:D:324:VAL:O	1:D:672:THR:HG23	2.20	0.42
1:Q:491:LYS:HG3	1:Q:533:LYS:O	2.20	0.42
1:E:324:VAL:O	1:E:672:THR:HG23	2.19	0.42
1:H:491:LYS:HG3	1:H:533:LYS:O	2.20	0.42
1:R:435:MET:HG2	1:R:474:GLN:OE1	2.20	0.42
1:R:694:ARG:NH2	1:R:696:ASN:OD1	2.53	0.42
1:J:403:MET:HG3	1:L:228:TRP:N	2.35	0.42
1:I:694:ARG:NH2	1:I:696:ASN:OD1	2.53	0.42
1:J:582:VAL:H	1:J:592:ALA:HB3	1.84	0.42
1:T:517:ILE:HG22	1:T:518:ILE:N	2.35	0.42
1:C:265:THR:C	1:C:267:ALA:H	2.23	0.42
1:D:590:ASP:CB	1:D:591:PRO:HA	2.46	0.42
1:I:366:PHE:HA	1:I:367:PRO:HD3	1.88	0.42
1:A:366:PHE:HE2	1:A:368:ALA:HB3	1.81	0.42
1:C:288:PHE:CD2	1:C:618:ILE:HG12	2.55	0.42
1:C:441:GLN:HE22	1:C:474:GLN:HB3	1.85	0.42
1:L:441:GLN:O	1:L:465:ARG:HD2	2.20	0.42
1:F:580:VAL:HG23	1:I:485:ARG:O	2.19	0.42
1:K:434:LEU:HD11	1:K:736:LEU:HD23	2.00	0.42
1:D:712:ASP:HB3	1:D:724:PRO:HG2	2.02	0.42
1:B:488:ARG:CZ	1:G:584:LEU:HD13	2.49	0.42
1:D:623:PRO:HB2	1:E:606:VAL:HG11	2.01	0.42
1:D:615:GLN:HB2	1:D:615:GLN:HE21	1.57	0.42
1:R:278:THR:HA	1:R:279:PRO:HD3	1.89	0.42
1:O:429:GLN:OE1	1:T:352:PRO:HB3	2.20	0.42
1:F:698:GLU:N	1:R:298:GLN:HE22	2.02	0.41
1:H:696:ASN:HD21	1:N:392:SER:HA	1.85	0.41
1:J:289:HIS:CG	1:J:365:PRO:HB3	2.55	0.41
1:H:517:ILE:HG22	1:H:518:ILE:N	2.35	0.41
1:G:527:HIS:CE1	1:G:532:ASP:OD1	2.72	0.41
1:T:265:THR:C	1:T:267:ALA:H	2.23	0.41
1:P:269:ASN:HA	1:P:272:HIS:HD2	1.79	0.41
1:H:584:LEU:HD13	1:N:488:ARG:CZ	2.50	0.41
1:L:269:ASN:HA	1:L:272:HIS:HD2	1.80	0.41
1:E:590:ASP:CB	1:E:591:PRO:HA	2.47	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:P:288:PHE:CD2	1:P:618:ILE:HG12	2.55	0.41
1:E:312:LEU:HB3	1:E:414:TYR:HB3	2.01	0.41
1:H:388:VAL:HG12	1:O:705:TYR:O	2.21	0.41
1:E:491:LYS:HG3	1:E:533:LYS:O	2.20	0.41
1:L:712:ASP:HB3	1:L:724:PRO:HG2	2.02	0.41
1:G:441:GLN:O	1:G:465:ARG:HD2	2.20	0.41
1:O:694:ARG:NH2	1:O:696:ASN:OD1	2.53	0.41
1:H:288:PHE:CD2	1:H:618:ILE:HG12	2.55	0.41
1:E:451:ASN:ND2	1:E:460:ASP:OD2	2.38	0.41
1:L:441:GLN:HE22	1:L:474:GLN:HB3	1.85	0.41
1:D:491:LYS:HG3	1:D:533:LYS:O	2.20	0.41
1:S:712:ASP:HB3	1:S:724:PRO:HG2	2.02	0.41
1:E:483:CYS:HB2	1:E:571:PRO:HG3	2.02	0.41
1:E:705:TYR:O	1:P:388:VAL:HG12	2.20	0.41
1:A:712:ASP:HB3	1:A:724:PRO:HG2	2.03	0.41
1:Q:289:HIS:CG	1:Q:365:PRO:HB3	2.55	0.41
1:H:517:ILE:HG13	1:Q:473:VAL:HG12	2.02	0.41
1:I:517:ILE:HG22	1:I:518:ILE:N	2.35	0.41
1:N:433:ARG:HG3	1:Q:379:LEU:CD1	2.47	0.41
1:H:265:THR:C	1:H:267:ALA:H	2.23	0.41
1:D:482:PRO:HG2	1:E:603:PRO:HD3	2.02	0.41
1:A:312:LEU:HB3	1:A:414:TYR:HB3	2.01	0.41
1:H:483:CYS:HB2	1:H:571:PRO:HG3	2.01	0.41
1:J:312:LEU:HB3	1:J:414:TYR:HB3	2.02	0.41
1:F:519:ASN:CB	1:P:475:PRO:HA	2.50	0.41
1:G:694:ARG:NH2	1:G:696:ASN:OD1	2.54	0.41
1:D:354:VAL:H	1:D:646:GLN:HE22	1.62	0.41
1:K:354:VAL:H	1:K:646:GLN:HE22	1.63	0.41
1:E:553:THR:HG23	1:E:557:ASN:CB	2.49	0.41
1:G:265:THR:C	1:G:267:ALA:H	2.23	0.41
1:F:523:ALA:O	1:F:570:ASN:ND2	2.41	0.41
1:J:288:PHE:CD2	1:J:618:ILE:HG12	2.55	0.41
1:F:322:LYS:NZ	1:K:654:VAL:HG11	2.35	0.41
1:D:441:GLN:O	1:D:465:ARG:HD2	2.21	0.41
1:C:363:LEU:HA	1:C:364:PRO:HD3	1.94	0.41
1:R:312:LEU:HB3	1:R:414:TYR:HB3	2.01	0.41
1:F:312:LEU:HB3	1:F:414:TYR:HB3	2.01	0.41
1:N:483:CYS:HB2	1:N:571:PRO:HG3	2.01	0.41
1:H:324:VAL:O	1:H:672:THR:HG23	2.19	0.41
1:L:491:LYS:HG3	1:L:533:LYS:O	2.20	0.41
1:T:312:LEU:HB3	1:T:414:TYR:HB3	2.01	0.41
1:J:491:LYS:HG3	1:J:533:LYS:O	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:712:ASP:HB3	1:J:724:PRO:HG2	2.03	0.41
1:Q:441:GLN:O	1:Q:465:ARG:HD2	2.20	0.41
1:O:441:GLN:O	1:O:465:ARG:HD2	2.21	0.41
1:B:597:HIS:NE2	1:G:582:VAL:HG13	2.36	0.41
1:C:582:VAL:H	1:C:592:ALA:HB3	1.84	0.41
1:N:523:ALA:O	1:N:570:ASN:ND2	2.41	0.41
1:D:441:GLN:HE22	1:D:474:GLN:HB3	1.85	0.41
1:F:485:ARG:O	1:P:580:VAL:HG23	2.20	0.41
1:J:360:GLN:HG3	1:R:662:PHE:HE2	1.84	0.41
1:O:483:CYS:HB2	1:O:571:PRO:HG3	2.01	0.41
1:A:694:ARG:NH2	1:A:696:ASN:OD1	2.54	0.41
1:F:712:ASP:HB3	1:F:724:PRO:HG2	2.03	0.41
1:K:705:TYR:O	1:S:388:VAL:HG12	2.21	0.41
1:A:517:ILE:HG22	1:A:518:ILE:N	2.35	0.41
1:N:517:ILE:HG22	1:N:518:ILE:N	2.35	0.41
1:K:379:LEU:CD1	1:R:433:ARG:HG3	2.49	0.41
1:N:451:ASN:CB	1:N:460:ASP:HB3	2.47	0.41
1:H:461:LEU:HD21	1:N:496:ASN:ND2	2.36	0.41
1:G:483:CYS:HB2	1:G:571:PRO:HG3	2.01	0.41
1:M:694:ARG:NH2	1:M:696:ASN:OD1	2.53	0.41
1:C:491:LYS:HG3	1:C:533:LYS:O	2.20	0.41
1:B:388:VAL:HG12	1:N:705:TYR:O	2.20	0.41
1:Q:324:VAL:O	1:Q:672:THR:HG23	2.19	0.41
1:O:606:VAL:HG11	1:T:623:PRO:HB2	2.03	0.41
1:J:257:TYR:CD1	1:L:366:PHE:CZ	3.08	0.41
1:R:441:GLN:O	1:R:465:ARG:HD2	2.21	0.41
1:D:519:ASN:CB	1:E:475:PRO:HA	2.46	0.41
1:L:289:HIS:CG	1:L:365:PRO:HB3	2.56	0.41
1:M:517:ILE:HG22	1:M:518:ILE:N	2.35	0.41
1:E:517:ILE:HG22	1:E:518:ILE:N	2.35	0.41
1:F:433:ARG:NH2	1:I:272:HIS:O	2.54	0.41
1:O:582:VAL:HG13	1:T:597:HIS:CE1	2.56	0.41
1:P:591:PRO:HB2	1:P:592:ALA:H	1.64	0.41
1:N:603:PRO:HD3	1:Q:482:PRO:HG2	2.03	0.41
1:F:654:VAL:HG11	1:H:322:LYS:NZ	2.36	0.41
1:M:441:GLN:HE22	1:M:474:GLN:HB3	1.86	0.41
1:C:441:GLN:O	1:C:465:ARG:HD2	2.20	0.41
1:M:615:GLN:HE21	1:M:615:GLN:HB2	1.57	0.41
1:R:712:ASP:HB3	1:R:724:PRO:HG2	2.02	0.41
1:M:712:ASP:HB3	1:M:724:PRO:HG2	2.02	0.41
1:G:712:ASP:HB3	1:G:724:PRO:HG2	2.03	0.41
1:R:483:CYS:HB2	1:R:571:PRO:HG3	2.01	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:T:491:LYS:HG3	1:T:533:LYS:O	2.20	0.41
1:R:441:GLN:HE22	1:R:474:GLN:HB3	1.86	0.41
1:E:441:GLN:HE22	1:E:474:GLN:HB3	1.84	0.41
1:T:289:HIS:CG	1:T:365:PRO:HB3	2.56	0.41
1:H:442:TYR:CE2	1:N:287:ARG:NH1	2.89	0.41
1:S:591:PRO:HB2	1:S:592:ALA:H	1.65	0.41
1:D:517:ILE:HG22	1:D:518:ILE:N	2.36	0.41
1:T:591:PRO:HB2	1:T:592:ALA:H	1.65	0.41
1:F:433:ARG:HG3	1:I:379:LEU:CD1	2.48	0.41
1:P:517:ILE:HG22	1:P:518:ILE:N	2.35	0.41
1:O:473:VAL:HG12	1:T:517:ILE:HG13	2.03	0.41
1:S:265:THR:C	1:S:267:ALA:H	2.23	0.41
1:H:451:ASN:CB	1:H:460:ASP:HB3	2.47	0.41
1:T:288:PHE:CD2	1:T:618:ILE:HG12	2.56	0.41
1:M:441:GLN:O	1:M:465:ARG:HD2	2.21	0.41
1:T:441:GLN:O	1:T:465:ARG:HD2	2.21	0.41
1:B:496:ASN:ND2	1:G:461:LEU:HD21	2.36	0.41
1:B:441:GLN:HE22	1:B:474:GLN:HB3	1.85	0.41
1:O:491:LYS:HG3	1:O:533:LYS:O	2.20	0.41
1:Q:312:LEU:HB3	1:Q:414:TYR:HB3	2.01	0.41
1:S:324:VAL:O	1:S:672:THR:HG23	2.20	0.41
1:Q:230:CYS:HA	1:Q:242:THR:O	2.21	0.41
1:B:491:LYS:HG3	1:B:533:LYS:O	2.20	0.41
1:A:705:TYR:O	1:G:388:VAL:HG12	2.21	0.41
1:K:491:LYS:HG3	1:K:533:LYS:O	2.20	0.41
1:I:441:GLN:HE22	1:I:474:GLN:HB3	1.85	0.41
1:I:441:GLN:HG2	1:P:359:HIS:HD2	1.85	0.41
1:P:441:GLN:O	1:P:465:ARG:HD2	2.21	0.41
1:F:441:GLN:O	1:F:465:ARG:HD2	2.21	0.41
1:N:441:GLN:O	1:N:465:ARG:HD2	2.20	0.41
1:O:475:PRO:HA	1:T:519:ASN:CB	2.46	0.41
1:H:441:GLN:O	1:H:465:ARG:HD2	2.21	0.41
1:D:289:HIS:CG	1:D:365:PRO:HB3	2.56	0.41
1:Q:694:ARG:NH2	1:Q:696:ASN:OD1	2.54	0.41
1:H:442:TYR:CD2	1:N:287:ARG:NH1	2.89	0.41
1:O:517:ILE:HG22	1:O:518:ILE:N	2.36	0.41
1:L:318:ASN:HB2	1:L:678:GLN:OE1	2.21	0.41
1:R:318:ASN:HB2	1:R:678:GLN:OE1	2.21	0.41
1:D:517:ILE:HG13	1:E:473:VAL:HG12	2.03	0.41
1:N:433:ARG:NH2	1:Q:272:HIS:O	2.53	0.41
1:B:517:ILE:HG22	1:B:518:ILE:N	2.35	0.41
1:R:553:THR:HG23	1:R:557:ASN:CB	2.48	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:626:ASP:O	1:P:630:HIS:HE1	2.04	0.41
1:D:654:VAL:HG11	1:I:322:LYS:NZ	2.34	0.41
1:B:485:ARG:O	1:G:580:VAL:HG23	2.20	0.41
1:O:603:PRO:O	1:T:634:LEU:HD11	2.21	0.41
1:F:491:LYS:HG3	1:F:533:LYS:O	2.20	0.41
1:O:388:VAL:HG12	1:S:705:TYR:O	2.20	0.41
1:J:407:GLY:N	1:L:222:GLY:O	2.52	0.41
1:D:400:PRO:HA	1:I:228:TRP:O	2.20	0.41
1:P:712:ASP:HB3	1:P:724:PRO:HG2	2.02	0.41
1:A:402:GLN:HG3	1:M:227:ASN:OD1	2.20	0.41
1:B:694:ARG:NH2	1:B:696:ASN:OD1	2.54	0.41
1:D:694:ARG:NH2	1:D:696:ASN:OD1	2.54	0.41
1:F:228:TRP:O	1:K:400:PRO:HA	2.20	0.41
1:F:287:ARG:NH1	1:P:442:TYR:CE2	2.88	0.41
1:G:289:HIS:CG	1:G:365:PRO:HB3	2.56	0.41
1:A:289:HIS:CG	1:A:365:PRO:HB3	2.56	0.41
1:R:517:ILE:HG22	1:R:518:ILE:N	2.36	0.41
1:Q:457:GLN:HB2	1:Q:457:GLN:HE21	1.71	0.41
1:P:272:HIS:CE1	1:P:385:SER:HG	2.34	0.41
1:G:373:ILE:HA	1:G:374:PRO:HD3	1.96	0.41
1:H:366:PHE:HA	1:H:367:PRO:HD3	1.88	0.41
1:K:451:ASN:CB	1:K:460:ASP:HB3	2.47	0.41
1:D:377:GLY:O	1:E:437:PRO:HD2	2.21	0.41
1:E:288:PHE:CD2	1:E:618:ILE:HG12	2.55	0.41
1:T:249:LEU:HG	1:T:651:ASN:ND2	2.36	0.41
1:Q:249:LEU:HG	1:Q:651:ASN:ND2	2.36	0.41
1:K:417:GLU:OE2	1:K:641:LYS:N	2.54	0.41
1:G:491:LYS:HG3	1:G:533:LYS:O	2.21	0.41
1:K:623:PRO:HB2	1:R:606:VAL:HG11	2.02	0.41
1:F:230:CYS:HA	1:F:242:THR:O	2.21	0.41
1:A:491:LYS:HG3	1:A:533:LYS:O	2.21	0.41
1:F:441:GLN:HE22	1:F:474:GLN:HB3	1.85	0.40
1:H:435:MET:HG2	1:H:474:GLN:OE1	2.21	0.40
1:G:435:MET:HG2	1:G:474:GLN:OE1	2.21	0.40
1:F:694:ARG:NH2	1:F:696:ASN:OD1	2.54	0.40
1:F:442:TYR:CD2	1:I:287:ARG:NH1	2.90	0.40
1:B:289:HIS:CG	1:B:365:PRO:HB3	2.56	0.40
1:N:289:HIS:CG	1:N:365:PRO:HB3	2.56	0.40
1:L:517:ILE:HG22	1:L:518:ILE:N	2.35	0.40
1:I:584:LEU:C	1:P:487:GLN:HE22	2.25	0.40
1:H:584:LEU:C	1:N:487:GLN:HE22	2.24	0.40
1:A:267:ALA:O	1:A:268:SER:HB3	2.22	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:Q:288:PHE:CD2	1:Q:618:ILE:HG12	2.55	0.40
1:L:435:MET:HG2	1:L:474:GLN:OE1	2.21	0.40
1:K:694:ARG:NH2	1:K:696:ASN:OD1	2.54	0.40
1:J:257:TYR:CD1	1:L:366:PHE:CE2	3.09	0.40
1:E:435:MET:HG2	1:E:474:GLN:OE1	2.22	0.40
1:E:441:GLN:O	1:E:465:ARG:HD2	2.21	0.40
1:N:435:MET:HG2	1:N:474:GLN:OE1	2.21	0.40
1:N:441:GLN:HE22	1:N:474:GLN:HB3	1.85	0.40
1:N:442:TYR:CE2	1:Q:287:ARG:NH1	2.90	0.40
1:B:287:ARG:NH1	1:G:442:TYR:CD2	2.89	0.40
1:B:287:ARG:NH1	1:G:442:TYR:CE2	2.89	0.40
1:D:318:ASN:HB2	1:D:678:GLN:OE1	2.22	0.40
1:K:517:ILE:HG13	1:R:473:VAL:HG12	2.03	0.40
1:I:265:THR:C	1:I:267:ALA:H	2.23	0.40
1:F:318:ASN:HB2	1:F:678:GLN:OE1	2.22	0.40
1:I:318:ASN:HB2	1:I:678:GLN:OE1	2.21	0.40
1:P:267:ALA:O	1:P:268:SER:HB3	2.21	0.40
1:E:498:ASN:CG	1:E:499:SER:H	2.25	0.40
1:E:269:ASN:HA	1:E:272:HIS:HD2	1.80	0.40
1:H:590:ASP:CB	1:H:591:PRO:HA	2.46	0.40
1:H:654:VAL:HG11	1:O:322:LYS:HZ1	1.86	0.40
1:R:322:LYS:O	1:R:673:GLN:HB2	2.22	0.40
1:A:322:LYS:NZ	1:G:654:VAL:HG11	2.37	0.40
1:J:441:GLN:O	1:J:465:ARG:HD2	2.21	0.40
1:J:363:LEU:HA	1:J:364:PRO:HD3	1.94	0.40
1:I:712:ASP:HB3	1:I:724:PRO:HG2	2.03	0.40
1:D:388:VAL:HG12	1:I:705:TYR:O	2.20	0.40
1:I:603:PRO:O	1:P:634:LEU:HD11	2.21	0.40
1:T:712:ASP:HB3	1:T:724:PRO:HG2	2.02	0.40
1:F:227:ASN:OD1	1:K:402:GLN:HG3	2.22	0.40
1:Q:441:GLN:HE22	1:Q:474:GLN:HB3	1.85	0.40
1:H:289:HIS:CG	1:H:365:PRO:HB3	2.57	0.40
1:P:289:HIS:CG	1:P:365:PRO:HB3	2.56	0.40
1:R:364:PRO:HA	1:R:365:PRO:HD2	1.96	0.40
1:H:498:ASN:CG	1:H:499:SER:H	2.25	0.40
1:K:318:ASN:HB2	1:K:678:GLN:OE1	2.22	0.40
1:L:272:HIS:ND1	1:L:385:SER:OG	2.44	0.40
1:H:267:ALA:O	1:H:268:SER:HB3	2.21	0.40
1:S:564:GLU:O	1:S:567:LYS:HG3	2.21	0.40
1:S:441:GLN:O	1:S:465:ARG:HD2	2.21	0.40
1:H:691:ASN:ND2	1:N:350:GLN:HE21	2.19	0.40
1:N:491:LYS:HG3	1:N:533:LYS:O	2.20	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:228:TRP:O	1:G:400:PRO:HA	2.21	0.40
1:K:712:ASP:HB3	1:K:724:PRO:HG2	2.03	0.40
1:T:694:ARG:NH2	1:T:696:ASN:OD1	2.54	0.40
1:B:705:TYR:O	1:C:388:VAL:HG12	2.21	0.40
1:M:380:THR:OG1	1:M:381:LEU:N	2.55	0.40
1:C:289:HIS:CG	1:C:365:PRO:HB3	2.57	0.40
1:M:289:HIS:CG	1:M:365:PRO:HB3	2.57	0.40
1:E:289:HIS:CG	1:E:365:PRO:HB3	2.57	0.40
1:K:289:HIS:CG	1:K:365:PRO:HB3	2.56	0.40
1:Q:517:ILE:HG22	1:Q:518:ILE:N	2.36	0.40
1:H:582:VAL:HG13	1:N:597:HIS:NE2	2.35	0.40
1:Q:318:ASN:HB2	1:Q:678:GLN:OE1	2.22	0.40
1:H:564:GLU:O	1:H:567:LYS:HG3	2.21	0.40
1:C:272:HIS:CE1	1:C:385:SER:HG	2.37	0.40
1:A:553:THR:HG23	1:A:557:ASN:CB	2.49	0.40
1:O:590:ASP:CB	1:O:591:PRO:HA	2.47	0.40
1:D:275:GLY:HA3	1:D:379:LEU:HD23	2.04	0.40
1:O:288:PHE:CD2	1:O:618:ILE:HG12	2.56	0.40
1:D:564:GLU:O	1:D:567:LYS:HG3	2.22	0.40
1:M:564:GLU:O	1:M:567:LYS:HG3	2.21	0.40
1:E:249:LEU:HG	1:E:651:ASN:ND2	2.37	0.40
1:F:603:PRO:HD3	1:I:482:PRO:HG2	2.03	0.40
1:S:483:CYS:HB2	1:S:571:PRO:HG3	2.02	0.40
1:S:694:ARG:NH2	1:S:696:ASN:OD1	2.55	0.40
1:F:428:SER:OG	1:F:733:THR:HB	2.22	0.40
1:B:228:TRP:O	1:C:400:PRO:HA	2.20	0.40
1:O:417:GLU:OE2	1:O:641:LYS:N	2.54	0.40
1:E:698:GLU:N	1:I:298:GLN:HE22	2.02	0.40
1:Q:435:MET:HG2	1:Q:474:GLN:OE1	2.22	0.40
1:F:498:ASN:CG	1:F:499:SER:H	2.25	0.40
1:F:287:ARG:NH1	1:P:442:TYR:CD2	2.89	0.40
1:O:364:PRO:HA	1:O:365:PRO:HD2	1.96	0.40
1:R:267:ALA:O	1:R:268:SER:HB3	2.22	0.40
1:I:553:THR:HG23	1:I:557:ASN:CB	2.49	0.40
1:S:269:ASN:HA	1:S:272:HIS:HD2	1.80	0.40
1:B:553:THR:HG23	1:B:557:ASN:CB	2.50	0.40
1:J:564:GLU:O	1:J:567:LYS:HG3	2.22	0.40
1:D:435:MET:HG2	1:D:474:GLN:OE1	2.21	0.40
1:F:249:LEU:HG	1:F:651:ASN:ND2	2.37	0.40
1:E:363:LEU:HA	1:E:364:PRO:HD3	1.94	0.40
1:B:488:ARG:NH2	1:G:584:LEU:HD13	2.36	0.40
1:H:428:SER:OG	1:H:733:THR:HB	2.22	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:712:ASP:HB3	1:C:724:PRO:HG2	2.03	0.40
1:L:694:ARG:NH2	1:L:696:ASN:OD1	2.54	0.40
1:G:278:THR:HA	1:G:279:PRO:HD3	1.90	0.40

All (15) 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	Distance(Å)	Clash(Å)
1:I:454:GLY:O	1:O:668:ALA:O[3_545]	1.88	0.32
1:M:453:SER:OG	1:R:326:THR:OG1[4_455]	1.94	0.26
1:G:626:ASP:OD1	1:M:423:SER:OG[2_555]	2.07	0.13
1:B:423:SER:OG	1:M:626:ASP:OD1[2_555]	2.09	0.11
1:M:452:GLN:O	1:R:329:GLY:CA[4_455]	2.10	0.10
1:A:423:SER:OG	1:A:626:ASP:OD1[2_555]	2.11	0.09
1:E:626:ASP:OD1	1:S:423:SER:OG[2_555]	2.11	0.09
1:D:423:SER:OG	1:S:626:ASP:OD1[2_555]	2.13	0.07
1:L:423:SER:OG	1:R:626:ASP:OD1[2_555]	2.13	0.07
1:K:423:SER:OG	1:L:626:ASP:OD1[3_555]	2.14	0.06
1:B:588:SER:O	1:M:497:ASN:ND2[2_555]	2.15	0.05
1:J:608:GLN:NE2	1:J:626:ASP:OD1[3_555]	2.15	0.05
1:C:423:SER:OG	1:O:626:ASP:OD1[2_555]	2.16	0.04
1:C:626:ASP:OD1	1:T:423:SER:OG[2_555]	2.17	0.03
1:J:449:THR:N	1:J:500:ASN:OD1[3_555]	2.19	0.01

5.3 Torsion angles

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution. The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	5	25
1	B	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	5	25
1	C	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	5	25
1	D	514/516 (100%)	437 (85%)	57 (11%)	20 (4%)	5	25
1	E	514/516 (100%)	438 (85%)	55 (11%)	21 (4%)	4	23

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	F	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	5	25
1	G	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	5	25
1	H	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	5	25
1	I	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	5	25
1	J	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	5	25
1	K	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	5	25
1	L	514/516 (100%)	437 (85%)	57 (11%)	20 (4%)	5	25
1	M	514/516 (100%)	437 (85%)	57 (11%)	20 (4%)	5	25
1	N	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	5	25
1	O	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	5	25
1	P	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	5	25
1	Q	514/516 (100%)	438 (85%)	55 (11%)	21 (4%)	4	23
1	R	514/516 (100%)	437 (85%)	57 (11%)	20 (4%)	5	25
1	S	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	5	25
1	T	514/516 (100%)	438 (85%)	56 (11%)	20 (4%)	5	25
All	All	10280/10320 (100%)	8756 (85%)	1122 (11%)	402 (4%)	5	25

All (402) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	358	ALA
1	A	519	ASN
1	A	531	LYS
1	A	552	ASN
1	A	586	SER
1	A	591	PRO
1	B	358	ALA
1	B	519	ASN
1	B	531	LYS
1	B	552	ASN
1	B	586	SER
1	B	591	PRO
1	C	358	ALA
1	C	519	ASN
1	C	531	LYS
1	C	552	ASN
1	C	586	SER

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Mol	Chain	Res	Type
1	C	591	PRO
1	D	358	ALA
1	D	519	ASN
1	D	531	LYS
1	D	552	ASN
1	D	586	SER
1	D	591	PRO
1	E	358	ALA
1	E	519	ASN
1	E	531	LYS
1	E	552	ASN
1	E	586	SER
1	E	591	PRO
1	F	358	ALA
1	F	519	ASN
1	F	531	LYS
1	F	552	ASN
1	F	586	SER
1	F	591	PRO
1	G	358	ALA
1	G	519	ASN
1	G	531	LYS
1	G	552	ASN
1	G	586	SER
1	G	591	PRO
1	H	358	ALA
1	H	519	ASN
1	H	531	LYS
1	H	552	ASN
1	H	586	SER
1	H	591	PRO
1	I	358	ALA
1	I	519	ASN
1	I	531	LYS
1	I	552	ASN
1	I	586	SER
1	I	591	PRO
1	J	358	ALA
1	J	519	ASN
1	J	531	LYS
1	J	552	ASN
1	J	586	SER

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Mol	Chain	Res	Type
1	J	591	PRO
1	K	358	ALA
1	K	519	ASN
1	K	531	LYS
1	K	552	ASN
1	K	586	SER
1	K	591	PRO
1	L	358	ALA
1	L	519	ASN
1	L	531	LYS
1	L	552	ASN
1	L	586	SER
1	L	591	PRO
1	M	358	ALA
1	M	519	ASN
1	M	531	LYS
1	M	552	ASN
1	M	586	SER
1	M	591	PRO
1	N	358	ALA
1	N	519	ASN
1	N	531	LYS
1	N	552	ASN
1	N	586	SER
1	N	591	PRO
1	O	358	ALA
1	O	519	ASN
1	O	531	LYS
1	O	552	ASN
1	O	586	SER
1	O	591	PRO
1	P	358	ALA
1	P	519	ASN
1	P	531	LYS
1	P	552	ASN
1	P	586	SER
1	P	591	PRO
1	Q	358	ALA
1	Q	519	ASN
1	Q	531	LYS
1	Q	552	ASN
1	Q	586	SER

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Mol	Chain	Res	Type
1	Q	591	PRO
1	R	358	ALA
1	R	519	ASN
1	R	531	LYS
1	R	552	ASN
1	R	586	SER
1	R	591	PRO
1	S	358	ALA
1	S	519	ASN
1	S	531	LYS
1	S	552	ASN
1	S	586	SER
1	S	591	PRO
1	T	358	ALA
1	T	519	ASN
1	T	531	LYS
1	T	552	ASN
1	T	586	SER
1	T	591	PRO
1	A	453	SER
1	A	523	ALA
1	A	553	THR
1	A	592	ALA
1	B	453	SER
1	B	523	ALA
1	B	553	THR
1	B	592	ALA
1	C	453	SER
1	C	523	ALA
1	C	553	THR
1	C	592	ALA
1	D	453	SER
1	D	523	ALA
1	D	553	THR
1	D	592	ALA
1	E	453	SER
1	E	523	ALA
1	E	553	THR
1	E	592	ALA
1	F	453	SER
1	F	523	ALA
1	F	553	THR

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Mol	Chain	Res	Type
1	F	592	ALA
1	G	453	SER
1	G	523	ALA
1	G	553	THR
1	G	592	ALA
1	H	453	SER
1	H	523	ALA
1	H	553	THR
1	H	592	ALA
1	I	453	SER
1	I	523	ALA
1	I	553	THR
1	I	592	ALA
1	J	453	SER
1	J	523	ALA
1	J	553	THR
1	J	592	ALA
1	K	453	SER
1	K	523	ALA
1	K	553	THR
1	K	592	ALA
1	L	453	SER
1	L	523	ALA
1	L	553	THR
1	L	592	ALA
1	M	236	GLY
1	M	453	SER
1	M	523	ALA
1	M	553	THR
1	M	592	ALA
1	N	453	SER
1	N	523	ALA
1	N	553	THR
1	N	592	ALA
1	O	453	SER
1	O	523	ALA
1	O	553	THR
1	O	592	ALA
1	P	453	SER
1	P	523	ALA
1	P	553	THR
1	P	592	ALA

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Mol	Chain	Res	Type
1	Q	453	SER
1	Q	523	ALA
1	Q	553	THR
1	Q	592	ALA
1	R	453	SER
1	R	523	ALA
1	R	553	THR
1	R	592	ALA
1	S	453	SER
1	S	523	ALA
1	S	553	THR
1	S	592	ALA
1	T	453	SER
1	T	523	ALA
1	T	553	THR
1	T	592	ALA
1	A	236	GLY
1	A	589	THR
1	B	236	GLY
1	B	589	THR
1	C	236	GLY
1	C	589	THR
1	D	236	GLY
1	D	589	THR
1	E	236	GLY
1	E	589	THR
1	F	236	GLY
1	F	589	THR
1	G	236	GLY
1	G	589	THR
1	H	236	GLY
1	H	589	THR
1	I	236	GLY
1	I	589	THR
1	J	236	GLY
1	J	589	THR
1	K	236	GLY
1	K	589	THR
1	L	236	GLY
1	L	589	THR
1	M	589	THR
1	N	236	GLY

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Mol	Chain	Res	Type
1	N	589	THR
1	O	236	GLY
1	O	589	THR
1	P	236	GLY
1	P	589	THR
1	Q	236	GLY
1	Q	589	THR
1	R	236	GLY
1	R	589	THR
1	S	236	GLY
1	S	589	THR
1	T	236	GLY
1	T	589	THR
1	A	451	ASN
1	A	546	GLU
1	A	602	LEU
1	A	631	PRO
1	A	659	PRO
1	B	451	ASN
1	B	546	GLU
1	B	602	LEU
1	B	631	PRO
1	B	659	PRO
1	C	451	ASN
1	C	546	GLU
1	C	602	LEU
1	C	631	PRO
1	C	659	PRO
1	D	451	ASN
1	D	520	PRO
1	D	546	GLU
1	D	602	LEU
1	D	631	PRO
1	D	659	PRO
1	E	451	ASN
1	E	546	GLU
1	E	602	LEU
1	E	631	PRO
1	E	659	PRO
1	F	451	ASN
1	F	546	GLU
1	F	602	LEU

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Mol	Chain	Res	Type
1	F	631	PRO
1	F	659	PRO
1	G	451	ASN
1	G	546	GLU
1	G	602	LEU
1	G	631	PRO
1	G	659	PRO
1	H	451	ASN
1	H	546	GLU
1	H	602	LEU
1	H	631	PRO
1	H	659	PRO
1	I	451	ASN
1	I	546	GLU
1	I	602	LEU
1	I	631	PRO
1	I	659	PRO
1	J	451	ASN
1	J	546	GLU
1	J	602	LEU
1	J	631	PRO
1	J	659	PRO
1	K	451	ASN
1	K	546	GLU
1	K	602	LEU
1	K	631	PRO
1	K	659	PRO
1	L	451	ASN
1	L	546	GLU
1	L	602	LEU
1	L	631	PRO
1	L	659	PRO
1	M	451	ASN
1	M	546	GLU
1	M	602	LEU
1	M	631	PRO
1	M	659	PRO
1	N	451	ASN
1	N	546	GLU
1	N	602	LEU
1	N	631	PRO
1	N	659	PRO

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Mol	Chain	Res	Type
1	O	451	ASN
1	O	546	GLU
1	O	602	LEU
1	O	631	PRO
1	O	659	PRO
1	P	451	ASN
1	P	546	GLU
1	P	602	LEU
1	P	631	PRO
1	P	659	PRO
1	Q	451	ASN
1	Q	546	GLU
1	Q	602	LEU
1	Q	631	PRO
1	Q	659	PRO
1	R	451	ASN
1	R	546	GLU
1	R	602	LEU
1	R	631	PRO
1	R	659	PRO
1	S	451	ASN
1	S	546	GLU
1	S	602	LEU
1	S	631	PRO
1	S	659	PRO
1	T	451	ASN
1	T	546	GLU
1	T	602	LEU
1	T	631	PRO
1	T	659	PRO
1	A	520	PRO
1	A	565	GLU
1	B	520	PRO
1	B	565	GLU
1	C	520	PRO
1	C	565	GLU
1	D	565	GLU
1	E	520	PRO
1	E	565	GLU
1	F	520	PRO
1	F	565	GLU
1	G	520	PRO

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Mol	Chain	Res	Type
1	G	565	GLU
1	H	520	PRO
1	H	565	GLU
1	I	520	PRO
1	I	565	GLU
1	J	520	PRO
1	J	565	GLU
1	K	520	PRO
1	K	565	GLU
1	L	520	PRO
1	L	565	GLU
1	M	520	PRO
1	M	565	GLU
1	N	520	PRO
1	N	565	GLU
1	O	520	PRO
1	O	565	GLU
1	P	520	PRO
1	P	565	GLU
1	Q	520	PRO
1	Q	565	GLU
1	R	520	PRO
1	R	565	GLU
1	S	520	PRO
1	S	565	GLU
1	T	520	PRO
1	T	565	GLU
1	A	268	SER
1	B	268	SER
1	C	268	SER
1	D	268	SER
1	E	268	SER
1	E	601	ALA
1	F	268	SER
1	G	268	SER
1	H	268	SER
1	I	268	SER
1	J	268	SER
1	K	268	SER
1	L	268	SER
1	M	268	SER
1	N	268	SER

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Mol	Chain	Res	Type
1	O	268	SER
1	P	268	SER
1	Q	268	SER
1	Q	601	ALA
1	R	268	SER
1	S	268	SER
1	T	268	SER

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution. The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	B	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	C	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	D	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	E	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	F	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	G	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	H	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	I	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	J	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	K	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	L	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	M	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	N	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	O	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	P	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	Q	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	R	451/451 (100%)	432 (96%)	19 (4%)	40	82
1	S	451/451 (100%)	432 (96%)	19 (4%)	40	82

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	T	451/451 (100%)	432 (96%)	19 (4%)	40	82
All	All	9020/9020 (100%)	8640 (96%)	380 (4%)	40	82

All (380) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	289	HIS
1	A	295	ARG
1	A	323	GLU
1	A	388	VAL
1	A	418	ASP
1	A	435	MET
1	A	476	LYS
1	A	508	LYS
1	A	519	ASN
1	A	593	THR
1	A	614	LEU
1	A	615	GLN
1	A	628	HIS
1	A	634	LEU
1	A	635	MET
1	A	657	ASN
1	A	690	GLU
1	A	717	ASN
1	A	725	ARG
1	B	289	HIS
1	B	295	ARG
1	B	323	GLU
1	B	388	VAL
1	B	418	ASP
1	B	435	MET
1	B	476	LYS
1	B	508	LYS
1	B	519	ASN
1	B	593	THR
1	B	614	LEU
1	B	615	GLN
1	B	628	HIS
1	B	634	LEU
1	B	635	MET
1	B	657	ASN
1	B	690	GLU

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Mol	Chain	Res	Type
1	B	717	ASN
1	B	725	ARG
1	C	289	HIS
1	C	295	ARG
1	C	323	GLU
1	C	388	VAL
1	C	418	ASP
1	C	435	MET
1	C	476	LYS
1	C	508	LYS
1	C	519	ASN
1	C	593	THR
1	C	614	LEU
1	C	615	GLN
1	C	628	HIS
1	C	634	LEU
1	C	635	MET
1	C	657	ASN
1	C	690	GLU
1	C	717	ASN
1	C	725	ARG
1	D	289	HIS
1	D	295	ARG
1	D	323	GLU
1	D	388	VAL
1	D	418	ASP
1	D	435	MET
1	D	476	LYS
1	D	508	LYS
1	D	519	ASN
1	D	593	THR
1	D	614	LEU
1	D	615	GLN
1	D	628	HIS
1	D	634	LEU
1	D	635	MET
1	D	657	ASN
1	D	690	GLU
1	D	717	ASN
1	D	725	ARG
1	E	289	HIS
1	E	295	ARG

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Mol	Chain	Res	Type
1	E	323	GLU
1	E	388	VAL
1	E	418	ASP
1	E	435	MET
1	E	476	LYS
1	E	508	LYS
1	E	519	ASN
1	E	593	THR
1	E	614	LEU
1	E	615	GLN
1	E	628	HIS
1	E	634	LEU
1	E	635	MET
1	E	657	ASN
1	E	690	GLU
1	E	717	ASN
1	E	725	ARG
1	F	289	HIS
1	F	295	ARG
1	F	323	GLU
1	F	388	VAL
1	F	418	ASP
1	F	435	MET
1	F	476	LYS
1	F	508	LYS
1	F	519	ASN
1	F	593	THR
1	F	614	LEU
1	F	615	GLN
1	F	628	HIS
1	F	634	LEU
1	F	635	MET
1	F	657	ASN
1	F	690	GLU
1	F	717	ASN
1	F	725	ARG
1	G	289	HIS
1	G	295	ARG
1	G	323	GLU
1	G	388	VAL
1	G	418	ASP
1	G	435	MET

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Mol	Chain	Res	Type
1	G	476	LYS
1	G	508	LYS
1	G	519	ASN
1	G	593	THR
1	G	614	LEU
1	G	615	GLN
1	G	628	HIS
1	G	634	LEU
1	G	635	MET
1	G	657	ASN
1	G	690	GLU
1	G	717	ASN
1	G	725	ARG
1	H	289	HIS
1	H	295	ARG
1	H	323	GLU
1	H	388	VAL
1	H	418	ASP
1	H	435	MET
1	H	476	LYS
1	H	508	LYS
1	H	519	ASN
1	H	593	THR
1	H	614	LEU
1	H	615	GLN
1	H	628	HIS
1	H	634	LEU
1	H	635	MET
1	H	657	ASN
1	H	690	GLU
1	H	717	ASN
1	H	725	ARG
1	I	289	HIS
1	I	295	ARG
1	I	323	GLU
1	I	388	VAL
1	I	418	ASP
1	I	435	MET
1	I	476	LYS
1	I	508	LYS
1	I	519	ASN
1	I	593	THR

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Mol	Chain	Res	Type
1	I	614	LEU
1	I	615	GLN
1	I	628	HIS
1	I	634	LEU
1	I	635	MET
1	I	657	ASN
1	I	690	GLU
1	I	717	ASN
1	I	725	ARG
1	J	289	HIS
1	J	295	ARG
1	J	323	GLU
1	J	388	VAL
1	J	418	ASP
1	J	435	MET
1	J	476	LYS
1	J	508	LYS
1	J	519	ASN
1	J	593	THR
1	J	614	LEU
1	J	615	GLN
1	J	628	HIS
1	J	634	LEU
1	J	635	MET
1	J	657	ASN
1	J	690	GLU
1	J	717	ASN
1	J	725	ARG
1	K	289	HIS
1	K	295	ARG
1	K	323	GLU
1	K	388	VAL
1	K	418	ASP
1	K	435	MET
1	K	476	LYS
1	K	508	LYS
1	K	519	ASN
1	K	593	THR
1	K	614	LEU
1	K	615	GLN
1	K	628	HIS
1	K	634	LEU

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Mol	Chain	Res	Type
1	K	635	MET
1	K	657	ASN
1	K	690	GLU
1	K	717	ASN
1	K	725	ARG
1	L	289	HIS
1	L	295	ARG
1	L	323	GLU
1	L	388	VAL
1	L	418	ASP
1	L	435	MET
1	L	476	LYS
1	L	508	LYS
1	L	519	ASN
1	L	593	THR
1	L	614	LEU
1	L	615	GLN
1	L	628	HIS
1	L	634	LEU
1	L	635	MET
1	L	657	ASN
1	L	690	GLU
1	L	717	ASN
1	L	725	ARG
1	M	289	HIS
1	M	295	ARG
1	M	323	GLU
1	M	388	VAL
1	M	418	ASP
1	M	435	MET
1	M	476	LYS
1	M	508	LYS
1	M	519	ASN
1	M	593	THR
1	M	614	LEU
1	M	615	GLN
1	M	628	HIS
1	M	634	LEU
1	M	635	MET
1	M	657	ASN
1	M	690	GLU
1	M	717	ASN

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Mol	Chain	Res	Type
1	M	725	ARG
1	N	289	HIS
1	N	295	ARG
1	N	323	GLU
1	N	388	VAL
1	N	418	ASP
1	N	435	MET
1	N	476	LYS
1	N	508	LYS
1	N	519	ASN
1	N	593	THR
1	N	614	LEU
1	N	615	GLN
1	N	628	HIS
1	N	634	LEU
1	N	635	MET
1	N	657	ASN
1	N	690	GLU
1	N	717	ASN
1	N	725	ARG
1	O	289	HIS
1	O	295	ARG
1	O	323	GLU
1	O	388	VAL
1	O	418	ASP
1	O	435	MET
1	O	476	LYS
1	O	508	LYS
1	O	519	ASN
1	O	593	THR
1	O	614	LEU
1	O	615	GLN
1	O	628	HIS
1	O	634	LEU
1	O	635	MET
1	O	657	ASN
1	O	690	GLU
1	O	717	ASN
1	O	725	ARG
1	P	289	HIS
1	P	295	ARG
1	P	323	GLU

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Mol	Chain	Res	Type
1	P	388	VAL
1	P	418	ASP
1	P	435	MET
1	P	476	LYS
1	P	508	LYS
1	P	519	ASN
1	P	593	THR
1	P	614	LEU
1	P	615	GLN
1	P	628	HIS
1	P	634	LEU
1	P	635	MET
1	P	657	ASN
1	P	690	GLU
1	P	717	ASN
1	P	725	ARG
1	Q	289	HIS
1	Q	295	ARG
1	Q	323	GLU
1	Q	388	VAL
1	Q	418	ASP
1	Q	435	MET
1	Q	476	LYS
1	Q	508	LYS
1	Q	519	ASN
1	Q	593	THR
1	Q	614	LEU
1	Q	615	GLN
1	Q	628	HIS
1	Q	634	LEU
1	Q	635	MET
1	Q	657	ASN
1	Q	690	GLU
1	Q	717	ASN
1	Q	725	ARG
1	R	289	HIS
1	R	295	ARG
1	R	323	GLU
1	R	388	VAL
1	R	418	ASP
1	R	435	MET
1	R	476	LYS

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Mol	Chain	Res	Type
1	R	508	LYS
1	R	519	ASN
1	R	593	THR
1	R	614	LEU
1	R	615	GLN
1	R	628	HIS
1	R	634	LEU
1	R	635	MET
1	R	657	ASN
1	R	690	GLU
1	R	717	ASN
1	R	725	ARG
1	S	289	HIS
1	S	295	ARG
1	S	323	GLU
1	S	388	VAL
1	S	418	ASP
1	S	435	MET
1	S	476	LYS
1	S	508	LYS
1	S	519	ASN
1	S	593	THR
1	S	614	LEU
1	S	615	GLN
1	S	628	HIS
1	S	634	LEU
1	S	635	MET
1	S	657	ASN
1	S	690	GLU
1	S	717	ASN
1	S	725	ARG
1	T	289	HIS
1	T	295	ARG
1	T	323	GLU
1	T	388	VAL
1	T	418	ASP
1	T	435	MET
1	T	476	LYS
1	T	508	LYS
1	T	519	ASN
1	T	593	THR
1	T	614	LEU

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Mol	Chain	Res	Type
1	T	615	GLN
1	T	628	HIS
1	T	634	LEU
1	T	635	MET
1	T	657	ASN
1	T	690	GLU
1	T	717	ASN
1	T	725	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (464) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	223	ASN
1	A	253	ASN
1	A	291	HIS
1	A	298	GLN
1	A	302	ASN
1	A	327	ASN
1	A	335	ASN
1	A	336	ASN
1	A	375	GLN
1	A	429	GLN
1	A	452	GLN
1	A	457	GLN
1	A	519	ASN
1	A	628	HIS
1	A	642	HIS
1	A	646	GLN
1	A	651	ASN
1	A	657	ASN
1	A	688	GLN
1	A	691	ASN
1	B	223	ASN
1	B	253	ASN
1	B	291	HIS
1	B	298	GLN
1	B	302	ASN
1	B	327	ASN
1	B	335	ASN
1	B	336	ASN
1	B	359	HIS
1	B	375	GLN

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Mol	Chain	Res	Type
1	B	429	GLN
1	B	452	GLN
1	B	457	GLN
1	B	487	GLN
1	B	519	ASN
1	B	624	HIS
1	B	628	HIS
1	B	642	HIS
1	B	646	GLN
1	B	651	ASN
1	B	657	ASN
1	B	688	GLN
1	B	691	ASN
1	C	223	ASN
1	C	253	ASN
1	C	291	HIS
1	C	298	GLN
1	C	302	ASN
1	C	327	ASN
1	C	335	ASN
1	C	336	ASN
1	C	342	GLN
1	C	375	GLN
1	C	429	GLN
1	C	452	GLN
1	C	457	GLN
1	C	519	ASN
1	C	628	HIS
1	C	642	HIS
1	C	646	GLN
1	C	651	ASN
1	C	657	ASN
1	C	688	GLN
1	D	223	ASN
1	D	253	ASN
1	D	291	HIS
1	D	298	GLN
1	D	302	ASN
1	D	313	ASN
1	D	327	ASN
1	D	335	ASN
1	D	336	ASN

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Mol	Chain	Res	Type
1	D	359	HIS
1	D	375	GLN
1	D	429	GLN
1	D	452	GLN
1	D	457	GLN
1	D	487	GLN
1	D	519	ASN
1	D	624	HIS
1	D	628	HIS
1	D	642	HIS
1	D	646	GLN
1	D	651	ASN
1	D	657	ASN
1	D	688	GLN
1	D	691	ASN
1	E	223	ASN
1	E	253	ASN
1	E	291	HIS
1	E	298	GLN
1	E	302	ASN
1	E	327	ASN
1	E	335	ASN
1	E	336	ASN
1	E	375	GLN
1	E	450	GLN
1	E	452	GLN
1	E	457	GLN
1	E	519	ASN
1	E	585	GLN
1	E	608	GLN
1	E	628	HIS
1	E	642	HIS
1	E	646	GLN
1	E	651	ASN
1	E	657	ASN
1	E	688	GLN
1	E	691	ASN
1	E	696	ASN
1	F	223	ASN
1	F	253	ASN
1	F	298	GLN
1	F	302	ASN

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Mol	Chain	Res	Type
1	F	313	ASN
1	F	327	ASN
1	F	335	ASN
1	F	336	ASN
1	F	342	GLN
1	F	359	HIS
1	F	375	GLN
1	F	450	GLN
1	F	452	GLN
1	F	457	GLN
1	F	487	GLN
1	F	519	ASN
1	F	585	GLN
1	F	608	GLN
1	F	624	HIS
1	F	628	HIS
1	F	642	HIS
1	F	646	GLN
1	F	651	ASN
1	F	657	ASN
1	F	688	GLN
1	F	691	ASN
1	F	696	ASN
1	G	223	ASN
1	G	253	ASN
1	G	298	GLN
1	G	302	ASN
1	G	327	ASN
1	G	335	ASN
1	G	336	ASN
1	G	342	GLN
1	G	375	GLN
1	G	450	GLN
1	G	452	GLN
1	G	457	GLN
1	G	519	ASN
1	G	585	GLN
1	G	608	GLN
1	G	628	HIS
1	G	642	HIS
1	G	646	GLN
1	G	651	ASN

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Mol	Chain	Res	Type
1	G	657	ASN
1	G	688	GLN
1	G	691	ASN
1	G	696	ASN
1	H	223	ASN
1	H	253	ASN
1	H	298	GLN
1	H	302	ASN
1	H	327	ASN
1	H	335	ASN
1	H	336	ASN
1	H	342	GLN
1	H	359	HIS
1	H	375	GLN
1	H	450	GLN
1	H	452	GLN
1	H	457	GLN
1	H	487	GLN
1	H	519	ASN
1	H	585	GLN
1	H	608	GLN
1	H	624	HIS
1	H	628	HIS
1	H	642	HIS
1	H	646	GLN
1	H	651	ASN
1	H	657	ASN
1	H	688	GLN
1	H	691	ASN
1	H	696	ASN
1	I	223	ASN
1	I	253	ASN
1	I	254	ASN
1	I	298	GLN
1	I	302	ASN
1	I	313	ASN
1	I	327	ASN
1	I	335	ASN
1	I	336	ASN
1	I	342	GLN
1	I	359	HIS
1	I	375	GLN

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Mol	Chain	Res	Type
1	I	450	GLN
1	I	452	GLN
1	I	457	GLN
1	I	487	GLN
1	I	519	ASN
1	I	585	GLN
1	I	608	GLN
1	I	624	HIS
1	I	628	HIS
1	I	642	HIS
1	I	646	GLN
1	I	651	ASN
1	I	657	ASN
1	I	688	GLN
1	I	691	ASN
1	I	696	ASN
1	J	253	ASN
1	J	298	GLN
1	J	302	ASN
1	J	313	ASN
1	J	327	ASN
1	J	335	ASN
1	J	342	GLN
1	J	375	GLN
1	J	429	GLN
1	J	452	GLN
1	J	457	GLN
1	J	519	ASN
1	J	628	HIS
1	J	642	HIS
1	J	646	GLN
1	J	657	ASN
1	J	688	GLN
1	K	223	ASN
1	K	253	ASN
1	K	298	GLN
1	K	302	ASN
1	K	313	ASN
1	K	327	ASN
1	K	335	ASN
1	K	336	ASN
1	K	342	GLN

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Mol	Chain	Res	Type
1	K	359	HIS
1	K	375	GLN
1	K	429	GLN
1	K	452	GLN
1	K	457	GLN
1	K	487	GLN
1	K	519	ASN
1	K	624	HIS
1	K	628	HIS
1	K	642	HIS
1	K	646	GLN
1	K	651	ASN
1	K	657	ASN
1	K	688	GLN
1	K	691	ASN
1	L	223	ASN
1	L	253	ASN
1	L	291	HIS
1	L	298	GLN
1	L	302	ASN
1	L	313	ASN
1	L	327	ASN
1	L	335	ASN
1	L	336	ASN
1	L	342	GLN
1	L	375	GLN
1	L	429	GLN
1	L	452	GLN
1	L	457	GLN
1	L	519	ASN
1	L	628	HIS
1	L	642	HIS
1	L	646	GLN
1	L	651	ASN
1	L	657	ASN
1	L	688	GLN
1	L	691	ASN
1	M	223	ASN
1	M	253	ASN
1	M	298	GLN
1	M	302	ASN
1	M	313	ASN

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Mol	Chain	Res	Type
1	M	327	ASN
1	M	335	ASN
1	M	336	ASN
1	M	375	GLN
1	M	429	GLN
1	M	452	GLN
1	M	457	GLN
1	M	519	ASN
1	M	628	HIS
1	M	642	HIS
1	M	646	GLN
1	M	657	ASN
1	M	688	GLN
1	M	691	ASN
1	N	223	ASN
1	N	253	ASN
1	N	298	GLN
1	N	302	ASN
1	N	327	ASN
1	N	335	ASN
1	N	336	ASN
1	N	342	GLN
1	N	359	HIS
1	N	375	GLN
1	N	450	GLN
1	N	452	GLN
1	N	457	GLN
1	N	487	GLN
1	N	519	ASN
1	N	585	GLN
1	N	608	GLN
1	N	624	HIS
1	N	628	HIS
1	N	642	HIS
1	N	646	GLN
1	N	651	ASN
1	N	657	ASN
1	N	688	GLN
1	N	691	ASN
1	N	696	ASN
1	O	223	ASN
1	O	253	ASN

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Mol	Chain	Res	Type
1	O	291	HIS
1	O	298	GLN
1	O	302	ASN
1	O	313	ASN
1	O	327	ASN
1	O	335	ASN
1	O	336	ASN
1	O	342	GLN
1	O	375	GLN
1	O	450	GLN
1	O	452	GLN
1	O	457	GLN
1	O	519	ASN
1	O	585	GLN
1	O	608	GLN
1	O	628	HIS
1	O	642	HIS
1	O	646	GLN
1	O	651	ASN
1	O	657	ASN
1	O	688	GLN
1	O	691	ASN
1	O	696	ASN
1	P	253	ASN
1	P	291	HIS
1	P	298	GLN
1	P	302	ASN
1	P	327	ASN
1	P	335	ASN
1	P	336	ASN
1	P	342	GLN
1	P	359	HIS
1	P	375	GLN
1	P	450	GLN
1	P	452	GLN
1	P	457	GLN
1	P	487	GLN
1	P	519	ASN
1	P	585	GLN
1	P	608	GLN
1	P	624	HIS
1	P	628	HIS

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Mol	Chain	Res	Type
1	P	642	HIS
1	P	646	GLN
1	P	657	ASN
1	P	688	GLN
1	P	691	ASN
1	P	696	ASN
1	Q	223	ASN
1	Q	253	ASN
1	Q	298	GLN
1	Q	302	ASN
1	Q	327	ASN
1	Q	335	ASN
1	Q	336	ASN
1	Q	359	HIS
1	Q	375	GLN
1	Q	450	GLN
1	Q	452	GLN
1	Q	457	GLN
1	Q	487	GLN
1	Q	519	ASN
1	Q	585	GLN
1	Q	608	GLN
1	Q	624	HIS
1	Q	628	HIS
1	Q	642	HIS
1	Q	646	GLN
1	Q	651	ASN
1	Q	657	ASN
1	Q	688	GLN
1	Q	691	ASN
1	Q	696	ASN
1	R	223	ASN
1	R	253	ASN
1	R	298	GLN
1	R	302	ASN
1	R	327	ASN
1	R	335	ASN
1	R	336	ASN
1	R	342	GLN
1	R	375	GLN
1	R	450	GLN
1	R	452	GLN

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Mol	Chain	Res	Type
1	R	457	GLN
1	R	519	ASN
1	R	585	GLN
1	R	608	GLN
1	R	628	HIS
1	R	642	HIS
1	R	646	GLN
1	R	651	ASN
1	R	657	ASN
1	R	688	GLN
1	R	691	ASN
1	R	696	ASN
1	S	223	ASN
1	S	253	ASN
1	S	291	HIS
1	S	298	GLN
1	S	302	ASN
1	S	327	ASN
1	S	335	ASN
1	S	336	ASN
1	S	342	GLN
1	S	375	GLN
1	S	429	GLN
1	S	452	GLN
1	S	457	GLN
1	S	519	ASN
1	S	628	HIS
1	S	642	HIS
1	S	646	GLN
1	S	651	ASN
1	S	657	ASN
1	S	688	GLN
1	T	223	ASN
1	T	253	ASN
1	T	291	HIS
1	T	298	GLN
1	T	302	ASN
1	T	327	ASN
1	T	335	ASN
1	T	336	ASN
1	T	342	GLN
1	T	359	HIS

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Mol	Chain	Res	Type
1	T	375	GLN
1	T	429	GLN
1	T	452	GLN
1	T	457	GLN
1	T	487	GLN
1	T	519	ASN
1	T	624	HIS
1	T	628	HIS
1	T	642	HIS
1	T	646	GLN
1	T	651	ASN
1	T	657	ASN
1	T	688	GLN
1	T	691	ASN

5.3.3 RNA ⓘ

There are no RNA chains 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 carbohydrates in this entry.

5.6 Ligand geometry ⓘ

There are no ligands in this entry.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
1	A	516/516 (100%)	-0.05	1 (0%)	93	53	72, 88, 112, 147	0
1	B	516/516 (100%)	-0.02	0	100	100	71, 87, 112, 144	0
1	C	516/516 (100%)	0.00	0	100	100	70, 87, 110, 145	0
1	D	516/516 (100%)	-0.05	0	100	100	71, 88, 112, 144	0
1	E	516/516 (100%)	-0.05	0	100	100	71, 87, 111, 148	0
1	F	516/516 (100%)	-0.01	0	100	100	70, 87, 111, 147	0
1	G	516/516 (100%)	-0.06	0	100	100	73, 87, 112, 145	0
1	H	516/516 (100%)	0.00	0	100	100	70, 86, 112, 145	0
1	I	516/516 (100%)	-0.04	0	100	100	71, 87, 112, 146	0
1	J	516/516 (100%)	-0.09	1 (0%)	93	53	73, 89, 112, 147	0
1	K	516/516 (100%)	-0.05	1 (0%)	93	53	70, 88, 113, 146	0
1	L	516/516 (100%)	-0.08	0	100	100	73, 88, 112, 146	0
1	M	516/516 (100%)	-0.06	0	100	100	70, 88, 112, 145	0
1	N	516/516 (100%)	-0.02	0	100	100	71, 87, 111, 147	0
1	O	516/516 (100%)	-0.02	0	100	100	70, 87, 111, 147	0
1	P	516/516 (100%)	-0.01	0	100	100	67, 86, 111, 146	0
1	Q	516/516 (100%)	-0.01	0	100	100	70, 87, 111, 146	0
1	R	516/516 (100%)	-0.07	0	100	100	72, 88, 112, 146	0
1	S	516/516 (100%)	-0.05	0	100	100	71, 87, 111, 145	0
1	T	516/516 (100%)	-0.01	0	100	100	72, 87, 111, 145	0
All	All	10320/10320 (100%)	-0.04	3 (0%)	100	100	67, 87, 112, 148	0

All (3) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	671	ILE	2.5
1	K	452	GLN	2.2
1	J	446	LEU	2.0

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

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

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

There are no ligands in this entry.

6.5 Other polymers ⓘ

There are no such residues in this entry.