Integrative Structure Validation Report

July 22, 2024 - 05:28 PM PDT

The following software was used in the production of this report:

Python-IHM Version 1.3
MolProbity Version 4.5.2
Integrative Modeling Validation Version 1.2

PDB ID	9A3W
PDB-Dev ID	PDBDEV_00000217
Structure Title	Structure of the phage immune evasion protein Gad1 bound to the Gabija GajAB complex
Structure Authors	Antine, S.P.; Johnson, A.G.; Mooney, S.E.; Mayer, M.L.; Kranzusch, P.J.

This is a PDB-Dev IM Structure Validation Report for a publicly released PDB-Dev entry.

We welcome your comments at pdb-dev@mail.wwpdb.org

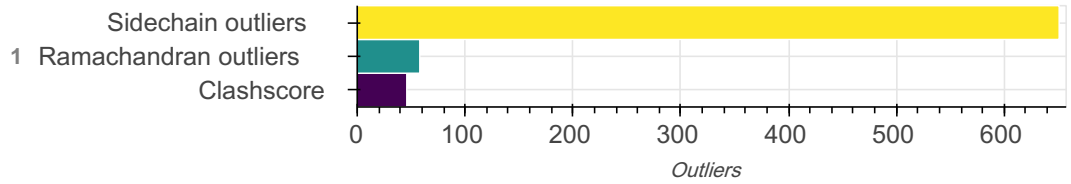
A user guide is available at https://pdb-dev.wwpdb.org/validation_help.html with specific help available everywhere you see the ? symbol.

List of references used to build this report is available here.

Overall quality

This validation report contains model quality assessments for all structures, data quality assessment for SAS datasets and fit to model assessments for SAS datasets. Data quality and fit to model assessments for other datasets and model uncertainty are under development. Number of plots is limited to 256.

Model Quality: MolProbity Analysis



Ensemble information

This entry consists of 0 distinct ensemble(s).

Summary

This entry consists of 1 unique models, with 24 subunits in each model. A total of 4 datasets or restraints were used to build this entry. Each model is represented by 0 rigid bodies and 16 flexible or non-rigid units.

Entry composition

There is 1 unique type of models in this entry. This model is titled None/None.

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
1	1	1	Gabija protein GajA	A	A	626
1	2	1	Gabija protein GajA	B	B	626
1	3	1	Gabija protein GajA	C	C	626
1	4	1	Gabija protein GajA	D	D	626
1	5	2	Gabija protein GajB	E	E	493
1	6	2	Gabija protein GajB	F	F	493
1	7	2	Gabija protein GajB	G	G	493
1	8	2	Gabija protein GajB	H	H	493
1	9	3	Gabija anti-defense 1	I	I	295
1	10	3	Gabija anti-defense 1	J	J	295

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
1	11	3	Gabija anti-defense 1	K	K	295
1	12	3	Gabija anti-defense 1	L	L	295
1	13	3	Gabija anti-defense 1	M	M	295
1	14	3	Gabija anti-defense 1	N	N	295
1	15	3	Gabija anti-defense 1	O	O	295
1	16	3	Gabija anti-defense 1	P	P	295
1	17	3	Gabija anti-defense 1	I	I	131
1	18	3	Gabija anti-defense 1	J	J	131
1	19	3	Gabija anti-defense 1	K	K	131
1	20	3	Gabija anti-defense 1	L	L	131
1	21	3	Gabija anti-defense 1	M	M	159
1	22	3	Gabija anti-defense 1	N	N	159
1	23	3	Gabija anti-defense 1	O	O	159
1	24	3	Gabija anti-defense 1	P	P	159

Datasets used for modeling

There are 4 unique datasets used to build the models in this entry.

ID	Dataset type	Database name	Data access code
1	Experimental model	PDB	8U7I
2	Experimental model	PDB	8SM3
3	De Novo model	Not available	Not available
4	3DEM volume	EMDB	EMD-41983

Representation

This entry has only one representation and includes 0 rigid bodies and 16 flexible units

Chain ID	Rigid bodies	Non-rigid segments
A	-	1-626
B	-	1-626
C	-	1-626
D	-	1-626
E	-	1-493
F	-	1-493
G	-	1-493
H	-	1-493
I	-	1-295
J	-	1-295
K	-	1-295
L	-	1-295
M	-	1-295
N	-	1-295

Chain ID	Rigid bodies	Non-rigid segments
O	-	1-295
P	-	1-295

Methodology and software

This entry is a result of 1 distinct protocol(s).

Step number	Protocol ID	Method name	Method type	Method description	Number of computed models	Multi state modeling	Multi scale modeling
1	1	None	None	None	None	False	False
2	1	None	None	None	None	False	False

There are 3 software packages reported in this entry.

ID	Software name	Software version	Software classification	Software location
2	Coot	0.8.9.3 EL	model building	https://www2.mrc-lmb.cam.ac.uk/personal/pemsley/coot/
3	AlphaFold2	v2.2.4	model building	https://alphafold.ebi.ac.uk/
1	PHENIX	1.20.1-4487	refinement	https://phenix-online.org/

Data quality

3DEM volume

Validation for this section is under development.

Model quality

For models with atomic structures, molprobity analysis is performed. For models with coarse-grained or multi-scale structures, excluded volume analysis is performed.

Standard geometry: bond outliers

Bond length outliers can not be evaluated for this model

Standard geometry: angle outliers

There are 135 angle outliers in this entry. A summary is provided below, and a detailed list of outliers can be found here.

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
C-N-CA	121.70	62.75	1
C-N-CA	121.70	67.53	1
CA-CB-CG	114.10	158.79	3
CA-CB-CG	114.10	158.77	1
O-C-N	123.00	87.29	1
O-C-N	123.00	91.13	1
C-N-CA	121.70	152.40	1
C-N-CA	121.70	152.39	1
C-N-CA	121.70	152.38	1
C-N-CA	121.70	152.35	1
CB-CG-CD	112.60	141.03	1
CB-CG-CD	112.60	141.01	1
CB-CG-CD	112.60	141.00	1
CB-CG-CD	112.60	140.98	1
CA-C-N	116.20	85.70	1
CA-C-N	116.20	89.15	1
O-C-N	123.00	102.68	1
O-C-N	123.00	102.70	1
O-C-N	123.00	102.72	1
O-C-N	123.00	102.73	1
CA-C-N	116.20	93.88	1
CA-C-N	116.20	93.89	3

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
C-N-CA	121.70	141.02	1
C-N-CA	121.70	141.01	1
C-N-CA	121.70	140.99	1
C-N-CA	121.70	140.97	1
N-CA-C	111.00	138.97	1
N-CA-C	111.00	138.96	1
N-CA-C	111.00	138.94	1
N-CA-C	111.00	138.92	1
CA-C-N	116.20	133.26	1
CA-C-N	116.20	133.23	2
CA-C-N	116.20	133.20	1
C-N-CA	121.70	106.66	1
C-N-CA	121.70	106.67	1
C-N-CA	121.70	106.68	1
C-N-CA	121.70	106.72	1
C-N-CA	121.70	136.04	1
C-N-CA	121.70	136.03	1
C-N-CA	121.70	136.02	1
C-N-CA	121.70	135.98	1
N-CA-C	111.00	132.35	1
N-CA-C	111.00	132.34	2
N-CA-C	111.00	132.33	1
N-CA-C	111.00	130.89	2

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
N-CA-C	111.00	130.88	2
CA-C-N	116.20	129.33	1
CA-C-N	116.20	129.29	1
CA-C-N	116.20	129.27	2
C-N-CA	121.70	133.03	2
C-N-CA	121.70	133.01	1
C-N-CA	121.70	133.00	1
N-CA-CB	110.50	121.11	1
N-CA-CB	110.50	121.05	2
N-CA-CB	110.50	121.02	1
C-N-CA	121.70	132.80	1
C-N-CA	121.70	132.77	1
C-N-CA	121.70	132.75	1
C-N-CA	121.70	132.74	1
CA-C-O	120.80	110.57	1
CA-C-O	120.80	110.63	2
CA-C-O	120.80	110.64	1
O-C-N	123.00	114.15	1
O-C-N	123.00	114.19	1
O-C-N	123.00	114.22	2
CA-C-O	120.80	111.83	1
CA-C-O	120.80	111.87	1
CA-C-O	120.80	111.89	2

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
C-N-CA	121.70	131.00	1
C-N-CA	121.70	130.97	2
C-N-CA	121.70	130.95	1
O-C-N	123.00	114.88	1
O-C-N	123.00	114.90	1
O-C-N	123.00	114.91	2
N-CA-C	111.00	124.57	3
N-CA-C	111.00	124.56	1
N-CA-C	111.00	97.86	1
N-CA-C	111.00	97.88	1
N-CA-C	111.00	97.89	1
O-C-N	123.00	115.51	1
N-CA-C	111.00	97.90	1
O-C-N	123.00	115.53	1
CA-C-N	116.20	125.52	1
O-C-N	123.00	115.56	2
CA-C-N	116.20	125.49	1
CA-C-N	116.20	125.47	2
C-N-CA	121.70	129.84	1
C-N-CA	121.70	129.83	1
C-N-CA	121.70	129.82	1
C-N-CA	121.70	129.80	1
CA-CB-CG	114.10	123.07	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
C-N-CA	121.70	129.73	1
C-N-CA	121.70	129.72	1
C-N-CA	121.70	129.68	2
C-CA-CB	110.10	118.50	1
C-CA-CB	110.10	118.46	2
C-CA-CB	110.10	118.44	1
N-CA-C	111.00	98.79	3
N-CA-C	111.00	98.80	1
CA-C-O	120.80	113.75	1
O-C-N	123.00	116.37	1
O-C-N	123.00	116.40	1
CA-C-O	120.80	113.79	1
CA-C-O	120.80	113.80	1
CA-C-O	120.80	113.81	1
O-C-N	123.00	116.43	2
C-N-CA	121.70	129.05	1
C-N-CA	121.70	129.04	1
C-N-CA	121.70	129.02	1
C-N-CA	121.70	129.00	1

Too-close contacts

The following all-atom clashscore is based on a MolProbity analysis. All-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The table below contains clashscores for all the models in this entry.

Model ID	Clash score	Number of clashes

Model ID	Clash score	Number of clashes
1	45.94	5088

All 5088 close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:33:PHE:HE1	M:53:PRO:CB	1.630
1	L:97:TYR:CZ	N:100:LYS:HE2	1.626
1	L:97:TYR:CE1	N:100:LYS:CE	1.621
1	P:33:PHE:HE1	P:53:PRO:CB	1.603
1	O:155:LEU:HG	O:255:LYS:CD	1.590
1	J:98:GLU:CA	P:99:VAL:HA	1.585
1	O:159:PRO:HG2	O:253:SER:CB	1.583
1	D:569:SER:HB3	K:23:TYR:CD2	1.580
1	K:42:TYR:CB	K:133:LEU:HD22	1.575
1	I:155:LEU:HG	N:136:HIS:CD2	1.573
1	M:37:ARG:CA	M:57:GLU:HG3	1.571
1	N:37:ARG:CA	N:57:GLU:HG3	1.571
1	O:33:PHE:HE1	O:53:PRO:CB	1.567
1	I:149:GLN:HB2	N:131:LEU:C	1.566
1	I:55:VAL:C	I:55:VAL:CA	1.565
1	N:33:PHE:HE1	N:53:PRO:CB	1.564
1	O:159:PRO:CD	O:253:SER:HA	1.560
1	L:55:VAL:C	L:55:VAL:CA	1.557
1	N:33:PHE:CE1	N:53:PRO:CB	1.556
1	B:569:SER:HB3	J:23:TYR:CD2	1.551

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:33:PHE:CE1	N:53:PRO:HB3	1.547
1	O:37:ARG:CA	O:57:GLU:HG3	1.547
1	I:57:GLU:CA	I:57:GLU:CB	1.546
1	J:57:GLU:CA	J:57:GLU:N	1.545
1	P:37:ARG:CA	P:57:GLU:HG3	1.543
1	L:57:GLU:CA	L:57:GLU:CB	1.542
1	J:97:TYR:CZ	P:100:LYS:HB3	1.541
1	O:33:PHE:CE1	O:53:PRO:HB3	1.540
1	M:149:GLN:HE21	N:215:MET:CE	1.539
1	K:57:GLU:CA	K:57:GLU:N	1.537
1	I:155:LEU:CG	N:136:HIS:CG	1.536
1	N:155:LEU:HG	N:255:LYS:CD	1.535
1	J:98:GLU:HA	P:99:VAL:CA	1.534
1	O:159:PRO:CG	O:253:SER:CA	1.531
1	P:33:PHE:CE1	P:53:PRO:HB3	1.526
1	K:149:GLN:HB2	P:131:LEU:C	1.525
1	M:33:PHE:CE1	M:53:PRO:HB3	1.517
1	P:37:ARG:N	P:57:GLU:CD	1.516
1	K:55:VAL:C	K:55:VAL:CA	1.507
1	I:57:GLU:CA	I:57:GLU:N	1.506
1	K:54:SER:C	K:54:SER:CA	1.506
1	M:37:ARG:N	M:57:GLU:CD	1.506
1	J:54:SER:C	J:54:SER:CA	1.502

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:57:GLU:CA	J:57:GLU:CB	1.502
1	J:55:VAL:C	J:55:VAL:CA	1.501
1	J:55:VAL:CA	J:55:VAL:N	1.498
1	O:155:LEU:HG	O:255:LYS:CE	1.496
1	L:142:TYR:CD2	O:138:PHE:O	1.493
1	K:57:GLU:CA	K:57:GLU:CB	1.492
1	K:92:GLU:CB	M:100:LYS:HZ1	1.492
1	L:57:GLU:CA	L:57:GLU:N	1.490
1	I:155:LEU:HG	N:136:HIS:CG	1.488
1	O:159:PRO:HB2	O:253:SER:C	1.488
1	I:155:LEU:CG	N:136:HIS:CB	1.487
1	K:92:GLU:HB3	M:100:LYS:NZ	1.486
1	L:54:SER:C	L:54:SER:CA	1.481
1	M:33:PHE:CE1	M:53:PRO:CB	1.481
1	P:37:ARG:CA	P:57:GLU:C	1.481
1	P:153:MET:O	P:161:TYR:CE2	1.481
1	M:37:ARG:CA	M:57:GLU:C	1.479
1	O:37:ARG:N	O:57:GLU:CD	1.477
1	L:55:VAL:CA	L:55:VAL:N	1.470
1	K:55:VAL:CA	K:55:VAL:N	1.469
1	M:149:GLN:CG	N:215:MET:HE1	1.469
1	N:40:GLU:CG	N:59:GLN:HE22	1.469
1	A:569:SER:HB3	L:23:TYR:CD2	1.468

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:55:VAL:CA	I:55:VAL:N	1.468
1	J:97:TYR:CE1	P:100:LYS:CB	1.467
1	O:40:GLU:CG	O:59:GLN:HE22	1.464
1	I:54:SER:C	I:54:SER:CA	1.461
1	I:155:LEU:CG	N:136:HIS:CD2	1.458
1	O:159:PRO:HG2	O:253:SER:CA	1.458
1	P:159:PRO:CD	P:161:TYR:HB3	1.457
1	J:98:GLU:HB2	P:102:LEU:CD2	1.456
1	O:159:PRO:HB3	O:254:GLY:CA	1.456
1	N:37:ARG:N	N:57:GLU:CD	1.455
1	M:36:LYS:CA	M:57:GLU:HG2	1.454
1	P:33:PHE:CE1	P:53:PRO:CB	1.452
1	O:36:LYS:CA	O:57:GLU:HG2	1.449
1	I:155:LEU:HD12	N:136:HIS:CA	1.447
1	J:98:GLU:CB	P:102:LEU:CB	1.446
1	J:98:GLU:CB	P:102:LEU:HB2	1.446
1	J:97:TYR:CZ	P:100:LYS:N	1.443
1	N:36:LYS:CA	N:57:GLU:HG2	1.439
1	O:150:THR:CB	O:160:CYS:SG	1.438
1	M:149:GLN:CG	N:215:MET:CE	1.437
1	P:154:LEU:HD13	P:160:CYS:CB	1.436
1	C:569:SER:HB3	I:23:TYR:CD2	1.434
1	J:97:TYR:CE1	P:100:LYS:HB3	1.433

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	P:36:LYS:CA	P:57:GLU:HG2	1.432
1	J:97:TYR:CE1	P:100:LYS:CA	1.430
1	L:125:GLU:CB	L:154:LEU:HD21	1.427
1	L:153:MET:C	O:136:HIS:CE1	1.426
1	N:36:LYS:CA	N:57:GLU:CG	1.426
1	O:36:LYS:CA	O:57:GLU:CG	1.426
1	L:155:LEU:CD1	O:136:HIS:HB2	1.422
1	K:98:GLU:OE2	M:102:LEU:CD2	1.420
1	L:142:TYR:CD2	O:138:PHE:C	1.419
1	L:98:GLU:HG2	N:102:LEU:N	1.418
1	I:154:LEU:N	N:136:HIS:CE1	1.418
1	P:40:GLU:CG	P:59:GLN:HE22	1.418
1	M:34:ASP:HA	M:55:VAL:CG2	1.415
1	O:33:PHE:CE1	O:53:PRO:CB	1.415
1	M:40:GLU:CG	M:59:GLN:HE22	1.414
1	N:37:ARG:CA	N:57:GLU:C	1.411
1	J:152:PRO:C	M:136:HIS:ND1	1.410
1	P:34:ASP:HA	P:55:VAL:CG2	1.409
1	I:149:GLN:CB	N:131:LEU:C	1.406
1	O:37:ARG:CA	O:58:LYS:N	1.406
1	M:34:ASP:CA	M:55:VAL:HG23	1.403
1	N:2:LYS:CA	N:120:GLU:H	1.401
1	N:37:ARG:CA	N:58:LYS:N	1.398

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:34:ASP:HA	N:55:VAL:CG2	1.397
1	O:154:LEU:HB2	O:160:CYS:N	1.397
1	O:33:PHE:CD1	O:53:PRO:HB3	1.396
1	N:33:PHE:CE2	N:34:ASP:OD2	1.394
1	N:33:PHE:CD1	N:53:PRO:HB3	1.394
1	P:34:ASP:CA	P:55:VAL:HG23	1.394
1	J:130:GLU:O	J:132:LYS:CE	1.393
1	M:37:ARG:CA	M:58:LYS:N	1.393
1	K:142:TYR:HB2	P:139:ASN:N	1.392
1	L:149:GLN:HB3	O:131:LEU:CD2	1.392
1	O:4:ILE:C	O:14:VAL:HG23	1.392
1	D:614:HIS:NE2	K:23:TYR:CZ	1.391
1	N:34:ASP:CA	N:55:VAL:HG23	1.391
1	P:33:PHE:CD1	P:53:PRO:HB3	1.391
1	O:2:LYS:CA	O:120:GLU:H	1.391
1	O:34:ASP:CA	O:55:VAL:HG23	1.390
1	O:34:ASP:HA	O:55:VAL:CG2	1.389
1	O:33:PHE:CE2	O:34:ASP:OD2	1.388
1	P:37:ARG:CA	P:58:LYS:N	1.388
1	L:4:ILE:C	L:14:VAL:HG23	1.387
1	L:142:TYR:CG	O:138:PHE:C	1.387
1	M:33:PHE:CD1	M:53:PRO:HB3	1.387
1	J:147:ARG:C	M:133:LEU:HD22	1.387

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:4:ILE:C	N:14:VAL:HG23	1.387
1	I:4:ILE:C	I:14:VAL:HG23	1.386
1	M:2:LYS:CA	M:120:GLU:H	1.385
1	J:152:PRO:O	M:136:HIS:ND1	1.384
1	K:4:ILE:C	K:14:VAL:HG23	1.382
1	M:4:ILE:CD1	M:18:ILE:HA	1.381
1	P:4:ILE:CD1	P:18:ILE:HA	1.381
1	P:2:LYS:CA	P:120:GLU:H	1.381
1	J:4:ILE:C	J:14:VAL:HG23	1.379
1	O:4:ILE:CD1	O:18:ILE:HA	1.379
1	L:144:LEU:N	O:140:LEU:HD23	1.377
1	N:154:LEU:HD21	N:255:LYS:C	1.376
1	P:33:PHE:CE2	P:34:ASP:OD2	1.376
1	I:149:GLN:HB2	N:132:LYS:N	1.373
1	N:4:ILE:CD1	N:18:ILE:HA	1.373
1	P:2:LYS:HA	P:120:GLU:N	1.373
1	P:4:ILE:C	P:14:VAL:HG23	1.372
1	L:127:ILE:HD11	L:154:LEU:CD1	1.370
1	M:33:PHE:CE2	M:34:ASP:OD2	1.370
1	P:36:LYS:CA	P:57:GLU:CG	1.369
1	I:154:LEU:N	N:136:HIS:HE1	1.369
1	J:148:ILE:N	M:133:LEU:CD2	1.368
1	O:2:LYS:HA	O:120:GLU:N	1.368

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:155:LEU:N	N:136:HIS:NE2	1.363
1	M:154:LEU:CB	M:160:CYS:N	1.363
1	K:42:TYR:HB3	K:133:LEU:CD2	1.362
1	O:37:ARG:HA	O:57:GLU:C	1.361
1	J:97:TYR:OH	P:100:LYS:CB	1.360
1	M:34:ASP:H	M:55:VAL:C	1.360
1	J:97:TYR:CE1	P:100:LYS:N	1.359
1	N:154:LEU:CD2	N:255:LYS:O	1.359
1	L:92:GLU:OE2	N:97:TYR:CE2	1.358
1	M:4:ILE:C	M:14:VAL:HG23	1.357
1	N:1:MET:C	N:119:PHE:HA	1.356
1	J:98:GLU:OE2	P:102:LEU:CD2	1.356
1	O:1:MET:C	O:119:PHE:HA	1.354
1	P:34:ASP:H	P:55:VAL:C	1.354
1	M:2:LYS:HA	M:120:GLU:N	1.352
1	P:1:MET:C	P:119:PHE:HA	1.352
1	O:34:ASP:H	O:55:VAL:C	1.350
1	N:2:LYS:HA	N:120:GLU:N	1.349
1	L:144:LEU:H	O:140:LEU:CD2	1.348
1	K:149:GLN:CG	P:131:LEU:HD23	1.345
1	N:37:ARG:HA	N:57:GLU:C	1.345
1	J:98:GLU:O	P:99:VAL:CG1	1.344
1	M:1:MET:C	M:119:PHE:HA	1.343

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:2:LYS:CA	I:120:GLU:H	1.342
1	I:32:LEU:HD23	I:57:GLU:CB	1.341
1	N:34:ASP:H	N:55:VAL:C	1.341
1	L:32:LEU:HD23	L:57:GLU:CB	1.339
1	L:2:LYS:CA	L:120:GLU:H	1.339
1	O:159:PRO:C	O:160:CYS:O	1.336
1	L:148:ILE:HD13	O:46:TRP:NE1	1.335
1	I:142:TYR:HB2	N:138:PHE:C	1.334
1	M:159:PRO:CA	M:161:TYR:HD2	1.334
1	D:569:SER:CB	K:23:TYR:CD2	1.331
1	J:32:LEU:HD23	J:57:GLU:CB	1.330
1	L:97:TYR:CE1	N:100:LYS:HE2	1.330
1	P:37:ARG:HA	P:57:GLU:C	1.330
1	O:159:PRO:CB	O:254:GLY:CA	1.327
1	D:569:SER:C	K:23:TYR:CE2	1.326
1	I:155:LEU:CD1	N:136:HIS:CG	1.325
1	J:2:LYS:CA	J:120:GLU:H	1.324
1	K:32:LEU:HD23	K:57:GLU:CB	1.322
1	K:149:GLN:CB	P:131:LEU:HD23	1.321
1	N:4:ILE:CG2	N:18:ILE:HG22	1.321
1	M:36:LYS:CA	M:57:GLU:CG	1.320
1	B:569:SER:CB	J:23:TYR:CD2	1.319
1	M:37:ARG:HA	M:57:GLU:C	1.317

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:159:PRO:O	M:260:LEU:HD22	1.316
1	O:159:PRO:HD2	O:253:SER:CA	1.316
1	K:2:LYS:CA	K:120:GLU:H	1.316
1	P:32:LEU:HD22	P:57:GLU:OE1	1.315
1	O:4:ILE:CG2	O:18:ILE:HG22	1.314
1	O:159:PRO:CG	O:254:GLY:N	1.314
1	L:145:LEU:CD2	O:6:ILE:HG12	1.313
1	M:32:LEU:HD22	M:57:GLU:OE1	1.313
1	P:4:ILE:CG2	P:18:ILE:HG22	1.313
1	L:149:GLN:CB	O:131:LEU:HD23	1.312
1	N:33:PHE:CD1	N:56:ILE:HG13	1.310
1	K:142:TYR:HB2	P:138:PHE:C	1.306
1	M:4:ILE:CG2	M:18:ILE:HG22	1.306
1	O:33:PHE:CD1	O:56:ILE:HG13	1.306
1	J:98:GLU:HB2	P:102:LEU:CG	1.305
1	K:98:GLU:OE2	M:102:LEU:HD23	1.305
1	O:159:PRO:C	O:260:LEU:HD21	1.304
1	O:32:LEU:HD22	O:57:GLU:OE1	1.301
1	J:98:GLU:O	P:99:VAL:HG13	1.301
1	K:1:MET:CE	K:119:PHE:H	1.301
1	O:37:ARG:HA	O:58:LYS:N	1.299
1	J:1:MET:CE	J:119:PHE:H	1.296
1	O:40:GLU:OE1	O:59:GLN:NE2	1.296

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:159:PRO:CG	O:253:SER:CB	1.295
1	M:149:GLN:HE22	N:215:MET:C	1.295
1	N:40:GLU:OE1	N:59:GLN:NE2	1.295
1	L:97:TYR:OH	N:100:LYS:HB3	1.294
1	N:155:LEU:CG	N:255:LYS:CD	1.294
1	O:155:LEU:CG	O:255:LYS:CD	1.293
1	L:1:MET:CE	L:119:PHE:H	1.293
1	N:37:ARG:HA	N:58:LYS:N	1.292
1	I:1:MET:CE	I:119:PHE:H	1.290
1	M:33:PHE:CD1	M:56:ILE:HG13	1.289
1	M:37:ARG:HA	M:58:LYS:N	1.289
1	J:31:LEU:O	J:57:GLU:N	1.288
1	P:33:PHE:CD1	P:56:ILE:HG13	1.285
1	J:32:LEU:HD22	J:57:GLU:CG	1.284
1	K:32:LEU:HD22	K:57:GLU:CG	1.283
1	N:32:LEU:HD22	N:57:GLU:OE1	1.283
1	N:154:LEU:HD23	N:255:LYS:O	1.282
1	P:154:LEU:HD21	P:255:LYS:C	1.279
1	P:37:ARG:HA	P:58:LYS:N	1.278
1	L:32:LEU:HD22	L:57:GLU:CG	1.277
1	O:159:PRO:CB	O:253:SER:C	1.276
1	M:40:GLU:OE1	M:59:GLN:NE2	1.276
1	P:40:GLU:OE1	P:59:GLN:NE2	1.276

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:32:LEU:CD2	N:57:GLU:OE1	1.273
1	N:159:PRO:N	N:161:TYR:CD2	1.273
1	L:148:ILE:CD1	O:46:TRP:CE2	1.272
1	P:159:PRO:O	P:260:LEU:CD2	1.272
1	I:32:LEU:HD22	I:57:GLU:CG	1.270
1	M:32:LEU:CD2	M:57:GLU:OE1	1.270
1	L:142:TYR:N	O:139:ASN:H	1.270
1	J:98:GLU:C	P:99:VAL:HG13	1.267
1	P:154:LEU:CD2	P:255:LYS:O	1.267
1	O:32:LEU:CD2	O:57:GLU:OE1	1.266
1	K:31:LEU:O	K:57:GLU:N	1.266
1	M:149:GLN:NE2	N:215:MET:C	1.265
1	P:32:LEU:CD2	P:57:GLU:OE1	1.265
1	M:159:PRO:CA	M:161:TYR:CD2	1.263
1	M:149:GLN:NE2	N:215:MET:HE2	1.263
1	N:1:MET:O	N:119:PHE:HA	1.261
1	I:97:TYR:CD1	O:98:GLU:O	1.259
1	J:1:MET:CE	J:119:PHE:HB3	1.259
1	L:148:ILE:CD1	O:46:TRP:NE1	1.259
1	P:1:MET:O	P:119:PHE:HA	1.258
1	K:1:MET:CE	K:119:PHE:HB3	1.257
1	G:354:ARG:HD3	H:92:ASP:O	1.256
1	M:159:PRO:N	M:161:TYR:CD2	1.256

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:159:PRO:CD	O:253:SER:CA	1.256
1	K:42:TYR:CD1	K:133:LEU:HD21	1.255
1	I:32:LEU:CD2	I:57:GLU:CG	1.253
1	J:130:GLU:O	J:132:LYS:CD	1.253
1	J:148:ILE:HG22	M:133:LEU:CD1	1.252
1	I:2:LYS:HA	I:120:GLU:N	1.251
1	L:2:LYS:HA	L:120:GLU:N	1.251
1	I:63:LYS:HE2	I:111:PRO:O	1.250
1	J:63:LYS:HE2	J:111:PRO:O	1.250
1	D:618:ALA:CB	P:23:TYR:OH	1.249
1	L:32:LEU:CD2	L:57:GLU:CG	1.249
1	L:148:ILE:HD13	O:46:TRP:CE2	1.248
1	K:97:TYR:O	M:98:GLU:HB3	1.248
1	C:569:SER:CB	I:23:TYR:CD2	1.247
1	J:1:MET:HE3	J:119:PHE:CB	1.247
1	K:63:LYS:HE2	K:111:PRO:O	1.247
1	L:98:GLU:CG	N:102:LEU:N	1.247
1	M:1:MET:O	M:119:PHE:HA	1.246
1	O:1:MET:O	O:119:PHE:HA	1.245
1	E:92:ASP:O	F:354:ARG:HD3	1.244
1	I:130:GLU:O	I:132:LYS:HE2	1.244
1	N:159:PRO:O	N:260:LEU:HD22	1.244
1	I:149:GLN:HG2	N:131:LEU:CG	1.243

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:110:ILE:CG1	O:111:PRO:HD2	1.243
1	N:110:ILE:CG1	N:111:PRO:HD2	1.242
1	K:1:MET:HE3	K:119:PHE:CB	1.241
1	K:142:TYR:CB	P:139:ASN:N	1.241
1	P:110:ILE:CG1	P:111:PRO:HD2	1.241
1	D:569:SER:HB3	K:23:TYR:CE2	1.240
1	D:614:HIS:CD2	K:23:TYR:OH	1.239
1	I:149:GLN:CG	N:131:LEU:HD23	1.239
1	K:151:HIS:O	P:136:HIS:CE1	1.239
1	I:1:MET:HE3	I:119:PHE:CB	1.238
1	J:15:SER:HB3	J:46:TRP:CZ2	1.238
1	J:3:LEU:O	J:120:GLU:O	1.238
1	J:2:LYS:HA	J:120:GLU:N	1.237
1	K:15:SER:HB3	K:46:TRP:CZ2	1.237
1	M:149:GLN:NE2	N:215:MET:CE	1.237
1	P:154:LEU:CD1	P:160:CYS:HB3	1.237
1	J:32:LEU:CD2	J:57:GLU:CG	1.236
1	K:32:LEU:CD2	K:57:GLU:CG	1.236
1	L:1:MET:HE3	L:119:PHE:CB	1.236
1	P:4:ILE:HD13	P:18:ILE:CA	1.236
1	M:150:THR:CB	M:160:CYS:SG	1.235
1	M:110:ILE:CG1	M:111:PRO:HD2	1.233
1	L:15:SER:HB3	L:46:TRP:CZ2	1.232

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:63:LYS:HE2	L:111:PRO:O	1.232
1	N:33:PHE:HB2	N:56:ILE:CG1	1.232
1	N:110:ILE:HG13	N:111:PRO:CD	1.232
1	K:3:LEU:O	K:120:GLU:O	1.232
1	L:1:MET:CE	L:119:PHE:HB3	1.231
1	J:142:TYR:N	M:139:ASN:H	1.231
1	I:15:SER:HB3	I:46:TRP:CZ2	1.230
1	M:153:MET:SD	M:161:TYR:CE1	1.230
1	I:1:MET:CE	I:119:PHE:HB3	1.229
1	N:154:LEU:CD2	N:255:LYS:C	1.229
1	O:33:PHE:CB	O:56:ILE:HG12	1.229
1	O:110:ILE:HG13	O:111:PRO:CD	1.229
1	K:149:GLN:HG3	P:131:LEU:CD2	1.228
1	N:4:ILE:HD13	N:18:ILE:CA	1.228
1	N:33:PHE:CB	N:56:ILE:HG12	1.228
1	G:92:ASP:O	H:354:ARG:HD3	1.227
1	M:4:ILE:HD13	M:18:ILE:CA	1.226
1	M:33:PHE:CB	M:56:ILE:HG12	1.225
1	K:2:LYS:HA	K:120:GLU:N	1.224
1	I:31:LEU:O	I:57:GLU:N	1.224
1	L:31:LEU:O	L:57:GLU:N	1.221
1	M:149:GLN:CD	N:215:MET:CE	1.220
1	O:159:PRO:CG	O:253:SER:C	1.220

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:4:ILE:HD13	O:18:ILE:CA	1.219
1	I:155:LEU:HD12	N:136:HIS:CG	1.218
1	L:145:LEU:HD23	O:6:ILE:CD1	1.218
1	K:42:TYR:CD1	K:133:LEU:CD2	1.217
1	K:149:GLN:CG	P:131:LEU:CD2	1.217
1	M:153:MET:SD	M:161:TYR:HE1	1.217
1	O:33:PHE:HB2	O:56:ILE:CG1	1.216
1	I:3:LEU:O	I:120:GLU:O	1.216
1	L:3:LEU:O	L:120:GLU:O	1.216
1	M:154:LEU:HB2	M:160:CYS:N	1.215
1	P:33:PHE:CB	P:56:ILE:HG12	1.215
1	J:142:TYR:HB2	M:138:PHE:C	1.211
1	K:98:GLU:CG	M:99:VAL:HA	1.211
1	P:110:ILE:HG13	P:111:PRO:CD	1.211
1	M:150:THR:CG2	M:160:CYS:SG	1.208
1	G:357:LYS:NZ	H:91:ASN:H	1.208
1	N:153:MET:SD	N:161:TYR:CE1	1.206
1	D:569:SER:CB	K:23:TYR:CE2	1.205
1	L:130:GLU:O	L:132:LYS:HE2	1.205
1	O:159:PRO:O	O:260:LEU:CD2	1.205
1	I:32:LEU:HA	I:57:GLU:CB	1.202
1	J:31:LEU:C	J:57:GLU:N	1.202
1	L:255:LYS:NZ	O:145:LEU:CD1	1.202

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:31:LEU:C	K:57:GLU:N	1.201
1	P:40:GLU:CG	P:59:GLN:NE2	1.201
1	P:40:GLU:HG2	P:59:GLN:HE22	1.201
1	J:97:TYR:CE1	P:100:LYS:HE2	1.200
1	O:40:GLU:CG	O:59:GLN:NE2	1.200
1	C:569:SER:CB	I:23:TYR:CE2	1.199
1	L:32:LEU:HA	L:57:GLU:CB	1.199
1	J:148:ILE:HD13	M:46:TRP:NE1	1.198
1	D:569:SER:O	K:23:TYR:CG	1.198
1	K:92:GLU:CB	M:100:LYS:NZ	1.198
1	M:110:ILE:HG13	M:111:PRO:CD	1.198
1	K:7:LYS:CG	K:126:GLU:HG2	1.197
1	M:40:GLU:HG2	M:59:GLN:HE22	1.197
1	K:149:GLN:HG2	P:131:LEU:CG	1.196
1	J:7:LYS:CG	J:126:GLU:HG2	1.195
1	K:32:LEU:HA	K:57:GLU:CB	1.195
1	J:5:GLY:CA	J:14:VAL:HA	1.194
1	K:5:GLY:CA	K:14:VAL:HA	1.194
1	D:569:SER:O	K:23:TYR:CD1	1.194
1	D:614:HIS:CG	K:23:TYR:OH	1.193
1	J:32:LEU:HA	J:57:GLU:CB	1.193
1	O:159:PRO:HG2	O:253:SER:C	1.193
1	K:149:GLN:CB	P:131:LEU:C	1.192

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:153:MET:O	O:161:TYR:CE1	1.190
1	D:569:SER:C	K:23:TYR:CD2	1.189
1	M:40:GLU:CG	M:59:GLN:NE2	1.189
1	N:5:GLY:CA	N:14:VAL:HA	1.188
1	I:31:LEU:HA	I:56:ILE:CD1	1.187
1	L:31:LEU:HA	L:56:ILE:CD1	1.187
1	O:5:GLY:CA	O:14:VAL:HA	1.187
1	O:154:LEU:CB	O:160:CYS:N	1.187
1	I:131:LEU:CD2	I:153:MET:CE	1.186
1	L:97:TYR:OH	N:100:LYS:HE2	1.186
1	E:354:ARG:HD3	F:92:ASP:O	1.185
1	I:31:LEU:C	I:57:GLU:N	1.185
1	N:40:GLU:CG	N:59:GLN:NE2	1.185
1	D:570:ALA:HA	K:23:TYR:CZ	1.184
1	L:7:LYS:CG	L:126:GLU:HG2	1.183
1	L:149:GLN:CB	O:131:LEU:CD2	1.183
1	K:42:TYR:CG	K:133:LEU:HD22	1.182
1	L:145:LEU:CD2	O:6:ILE:CG1	1.181
1	I:147:ARG:CZ	N:43:LYS:HD2	1.180
1	P:5:GLY:CA	P:14:VAL:HA	1.179
1	B:569:SER:C	J:23:TYR:CE2	1.177
1	I:7:LYS:CG	I:126:GLU:HG2	1.177
1	L:31:LEU:C	L:57:GLU:N	1.177

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:150:THR:HG23	M:160:CYS:SG	1.176
1	I:1:MET:C	I:119:PHE:HA	1.174
1	L:7:LYS:HG2	L:126:GLU:HG2	1.174
1	L:5:GLY:CA	L:14:VAL:HA	1.173
1	M:5:GLY:CA	M:14:VAL:HA	1.173
1	J:142:TYR:H	M:139:ASN:N	1.173
1	K:149:GLN:OE1	P:132:LYS:N	1.173
1	L:1:MET:C	L:119:PHE:HA	1.172
1	M:4:ILE:HG21	M:18:ILE:CG2	1.172
1	N:159:PRO:CA	N:161:TYR:CD2	1.172
1	P:154:LEU:CD1	P:160:CYS:CB	1.171
1	I:5:GLY:CA	I:14:VAL:HA	1.170
1	O:37:ARG:HB3	O:58:LYS:C	1.170
1	P:4:ILE:HG21	P:18:ILE:CG2	1.169
1	I:154:LEU:C	N:136:HIS:HE2	1.168
1	N:32:LEU:HA	N:57:GLU:HA	1.168
1	N:37:ARG:HB3	N:58:LYS:C	1.168
1	O:32:LEU:HA	O:57:GLU:HA	1.168
1	L:131:LEU:HB3	L:132:LYS:O	1.167
1	P:37:ARG:HB3	P:58:LYS:C	1.166
1	M:4:ILE:HD11	M:17:ASN:C	1.165
1	I:7:LYS:HG2	I:126:GLU:HG2	1.164
1	J:32:LEU:HA	J:57:GLU:HB2	1.163

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:130:GLU:O	J:132:LYS:HE3	1.163
1	N:4:ILE:HD11	N:17:ASN:C	1.163
1	L:155:LEU:HD12	O:136:HIS:HB2	1.162
1	P:32:LEU:HA	P:57:GLU:HA	1.162
1	I:14:VAL:HB	I:121:MET:HE1	1.161
1	K:1:MET:C	K:119:PHE:HA	1.161
1	O:155:LEU:CD1	O:255:LYS:HD3	1.161
1	B:569:SER:CB	J:23:TYR:CE2	1.160
1	M:37:ARG:HB3	M:58:LYS:C	1.160
1	O:4:ILE:HG21	O:18:ILE:CG2	1.160
1	P:159:PRO:O	P:260:LEU:HD22	1.160
1	N:4:ILE:HG21	N:18:ILE:CG2	1.159
1	O:159:PRO:CG	O:253:SER:HB3	1.159
1	I:15:SER:HB3	I:46:TRP:CH2	1.158
1	O:4:ILE:HD11	O:17:ASN:C	1.158
1	K:92:GLU:CG	M:100:LYS:HZ1	1.158
1	I:155:LEU:H	N:136:HIS:CE1	1.157
1	P:4:ILE:HD11	P:17:ASN:C	1.157
1	L:15:SER:HB3	L:46:TRP:CH2	1.156
1	N:155:LEU:CG	N:255:LYS:HD3	1.156
1	J:15:SER:HB3	J:46:TRP:CH2	1.155
1	K:42:TYR:CB	K:133:LEU:CD2	1.155
1	K:98:GLU:CD	M:102:LEU:HD23	1.155

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:145:LEU:HD21	O:6:ILE:HG12	1.154
1	I:98:GLU:HA	O:99:VAL:HA	1.153
1	M:149:GLN:HG2	N:215:MET:CE	1.153
1	N:159:PRO:CA	N:161:TYR:HD2	1.152
1	D:614:HIS:CE1	K:23:TYR:CZ	1.151
1	J:1:MET:C	J:119:PHE:HA	1.151
1	K:97:TYR:O	M:98:GLU:CB	1.151
1	N:36:LYS:CA	N:57:GLU:CB	1.150
1	B:569:SER:HB3	J:23:TYR:CE2	1.149
1	I:149:GLN:CG	N:131:LEU:CD2	1.148
1	K:15:SER:HB3	K:46:TRP:CH2	1.148
1	N:37:ARG:HG2	N:58:LYS:O	1.148
1	O:26:SER:CB	O:45:ASP:HA	1.148
1	K:32:LEU:HA	K:57:GLU:HB2	1.146
1	K:149:GLN:HG2	P:131:LEU:HG	1.144
1	M:37:ARG:HG2	M:58:LYS:O	1.144
1	O:159:PRO:O	O:260:LEU:HD21	1.144
1	K:31:LEU:HA	K:56:ILE:CD1	1.143
1	L:145:LEU:CD2	O:6:ILE:CD1	1.143
1	N:6:ILE:HD12	N:46:TRP:CH2	1.143
1	N:26:SER:CB	N:45:ASP:HA	1.143
1	O:6:ILE:HD12	O:46:TRP:CH2	1.143
1	K:32:LEU:CD2	K:57:GLU:HG2	1.142

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:37:ARG:HG2	O:58:LYS:O	1.142
1	I:161:TYR:HE1	N:141:ASN:N	1.142
1	K:42:TYR:CG	K:133:LEU:CD2	1.141
1	J:6:ILE:HG12	J:154:LEU:HD21	1.140
1	L:14:VAL:HB	L:121:MET:HE1	1.140
1	P:15:SER:HB3	P:46:TRP:CZ2	1.139
1	P:26:SER:CB	P:45:ASP:HA	1.139
1	J:142:TYR:N	M:139:ASN:N	1.139
1	O:149:GLN:NE2	P:215:MET:O	1.139
1	J:31:LEU:HA	J:56:ILE:CD1	1.138
1	L:32:LEU:CD2	L:57:GLU:HG2	1.138
1	K:7:LYS:HG2	K:126:GLU:HG2	1.137
1	K:14:VAL:HB	K:121:MET:HE1	1.137
1	N:15:SER:HB3	N:46:TRP:CZ2	1.137
1	L:125:GLU:HB3	L:154:LEU:HD21	1.136
1	P:33:PHE:HB2	P:56:ILE:CG1	1.136
1	I:143:ASN:HD22	N:140:LEU:CD1	1.135
1	L:148:ILE:CB	O:133:LEU:HD11	1.134
1	M:15:SER:HB3	M:46:TRP:CZ2	1.134
1	L:144:LEU:N	O:140:LEU:CD2	1.134
1	O:15:SER:HB3	O:46:TRP:CZ2	1.133
1	O:153:MET:O	O:161:TYR:CD1	1.133
1	P:153:MET:SD	P:156:GLU:OE2	1.133

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	G:91:ASN:H	H:357:LYS:NZ	1.132
1	M:26:SER:CB	M:45:ASP:HA	1.131
1	I:149:GLN:HG3	N:131:LEU:HD23	1.129
1	I:154:LEU:C	N:136:HIS:NE2	1.129
1	J:14:VAL:HB	J:121:MET:HE1	1.129
1	D:569:SER:CA	K:23:TYR:CD2	1.128
1	N:155:LEU:HG	N:255:LYS:CE	1.127
1	M:153:MET:SD	M:156:GLU:OE2	1.127
1	L:255:LYS:NZ	O:145:LEU:HD11	1.126
1	J:3:LEU:CA	J:120:GLU:O	1.125
1	M:32:LEU:HA	M:57:GLU:HA	1.125
1	O:37:ARG:CG	O:58:LYS:O	1.124
1	O:33:PHE:CE1	O:53:PRO:CA	1.123
1	P:154:LEU:HD23	P:255:LYS:O	1.123
1	K:3:LEU:CA	K:120:GLU:O	1.121
1	N:37:ARG:CG	N:58:LYS:O	1.121
1	P:6:ILE:HD12	P:46:TRP:CH2	1.121
1	N:33:PHE:CE1	N:53:PRO:CA	1.120
1	P:37:ARG:CG	P:58:LYS:O	1.120
1	O:153:MET:SD	O:156:GLU:OE2	1.120
1	O:36:LYS:CA	O:57:GLU:CB	1.119
1	J:7:LYS:HG2	J:126:GLU:HG2	1.118
1	P:37:ARG:HG2	P:58:LYS:O	1.118

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:97:TYR:CG	O:98:GLU:O	1.117
1	L:149:GLN:CB	O:131:LEU:HB3	1.117
1	J:32:LEU:CD2	J:57:GLU:HG2	1.115
1	M:33:PHE:HB2	M:56:ILE:CG1	1.115
1	M:6:ILE:HD12	M:46:TRP:CH2	1.114
1	I:37:ARG:HA	I:57:GLU:CB	1.112
1	M:37:ARG:CG	M:58:LYS:O	1.112
1	M:40:GLU:CD	M:59:GLN:NE2	1.112
1	L:149:GLN:HB3	O:131:LEU:HD22	1.111
1	P:33:PHE:CE1	P:53:PRO:CA	1.111
1	K:142:TYR:CB	P:138:PHE:C	1.111
1	K:3:LEU:H	K:120:GLU:N	1.111
1	I:32:LEU:HA	I:57:GLU:HB2	1.110
1	J:3:LEU:H	J:120:GLU:N	1.110
1	O:40:GLU:HG2	O:59:GLN:HE22	1.110
1	I:32:LEU:CD2	I:57:GLU:HG2	1.109
1	M:33:PHE:CE1	M:53:PRO:CA	1.109
1	P:40:GLU:CD	P:59:GLN:NE2	1.109
1	I:3:LEU:C	I:120:GLU:O	1.108
1	L:37:ARG:HA	L:57:GLU:CB	1.108
1	N:3:LEU:CD2	N:119:PHE:HD2	1.108
1	L:255:LYS:HZ3	O:145:LEU:CD1	1.107
1	N:153:MET:SD	N:156:GLU:OE2	1.107

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:32:LEU:HD23	K:57:GLU:HB2	1.106
1	L:3:LEU:C	L:120:GLU:O	1.106
1	M:127:ILE:CD1	M:131:LEU:HD12	1.106
1	I:154:LEU:H	N:136:HIS:CE1	1.106
1	M:149:GLN:HG3	N:215:MET:HE1	1.106
1	J:97:TYR:OH	P:100:LYS:HB3	1.106
1	B:569:SER:O	J:23:TYR:CD1	1.105
1	O:3:LEU:CD2	O:119:PHE:HD2	1.105
1	K:145:LEU:HD12	P:140:LEU:CD2	1.104
1	K:149:GLN:CG	P:131:LEU:CG	1.104
1	L:32:LEU:HD23	L:57:GLU:HB2	1.104
1	N:127:ILE:CD1	N:131:LEU:HD12	1.104
1	O:159:PRO:HB3	O:254:GLY:C	1.104
1	P:26:SER:HB3	P:45:ASP:HA	1.104
1	P:127:ILE:CD1	P:131:LEU:HD12	1.104
1	P:159:PRO:HD2	P:161:TYR:HB3	1.104
1	L:3:LEU:CA	L:120:GLU:O	1.103
1	L:97:TYR:CE1	N:100:LYS:HE3	1.103
1	L:142:TYR:N	O:139:ASN:N	1.103
1	I:149:GLN:HG3	N:131:LEU:CD2	1.102
1	L:148:ILE:HG22	O:133:LEU:CD1	1.102
1	O:127:ILE:CD1	O:131:LEU:HD12	1.102
1	O:155:LEU:HG	O:255:LYS:HE3	1.102

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:98:GLU:O	P:99:VAL:CG2	1.102
1	K:37:ARG:HA	K:57:GLU:CB	1.101
1	O:26:SER:HB3	O:45:ASP:HA	1.101
1	I:3:LEU:CA	I:120:GLU:O	1.100
1	B:569:SER:O	J:23:TYR:CG	1.100
1	M:1:MET:HE3	M:119:PHE:HB3	1.099
1	L:148:ILE:CG2	O:133:LEU:CD1	1.099
1	N:1:MET:HE3	N:119:PHE:HB3	1.098
1	P:38:ALA:N	P:58:LYS:HA	1.098
1	J:98:GLU:OE2	P:102:LEU:HD22	1.098
1	K:124:ILE:HD12	K:151:HIS:CD2	1.097
1	N:26:SER:HB3	N:45:ASP:HA	1.097
1	L:149:GLN:CG	O:131:LEU:HD23	1.097
1	J:37:ARG:HA	J:57:GLU:CB	1.096
1	J:148:ILE:CD1	M:46:TRP:NE1	1.096
1	M:38:ALA:N	M:58:LYS:HA	1.096
1	I:142:TYR:HB2	N:139:ASN:N	1.095
1	J:32:LEU:HD23	J:57:GLU:HB2	1.095
1	N:33:PHE:CZ	N:34:ASP:OD2	1.095
1	M:34:ASP:N	M:55:VAL:O	1.095
1	I:151:HIS:CB	N:134:GLN:OE1	1.095
1	J:3:LEU:C	J:120:GLU:O	1.094
1	K:3:LEU:C	K:120:GLU:O	1.094

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:33:PHE:CZ	M:34:ASP:OD2	1.094
1	D:614:HIS:CE1	K:23:TYR:OH	1.093
1	I:32:LEU:HD23	I:57:GLU:HB2	1.093
1	J:145:LEU:HD23	M:6:ILE:HG12	1.093
1	M:37:ARG:HB3	M:58:LYS:CA	1.093
1	P:4:ILE:CG2	P:18:ILE:CG2	1.093
1	M:26:SER:HB3	M:45:ASP:HA	1.092
1	O:38:ALA:N	O:58:LYS:HA	1.092
1	J:98:GLU:O	P:99:VAL:HG22	1.092
1	L:3:LEU:H	L:120:GLU:N	1.092
1	N:34:ASP:N	N:55:VAL:O	1.092
1	J:98:GLU:HB3	P:102:LEU:CB	1.091
1	N:38:ALA:N	N:58:LYS:HA	1.091
1	I:98:GLU:HG2	O:102:LEU:HB2	1.090
1	I:131:LEU:CD2	I:153:MET:HE2	1.090
1	J:97:TYR:CD1	P:100:LYS:HE2	1.089
1	L:145:LEU:HD21	O:6:ILE:CG1	1.089
1	O:33:PHE:CZ	O:34:ASP:OD2	1.089
1	N:40:GLU:HG2	N:59:GLN:HE22	1.089
1	O:34:ASP:N	O:55:VAL:O	1.089
1	I:155:LEU:CB	N:136:HIS:CD2	1.088
1	L:97:TYR:CZ	N:100:LYS:CE	1.088
1	P:37:ARG:HB3	P:58:LYS:CA	1.088

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	P:154:LEU:HD13	P:160:CYS:HB3	1.088
1	J:2:LYS:HA	J:120:GLU:H	1.088
1	L:63:LYS:CE	L:111:PRO:O	1.088
1	C:569:SER:HB3	I:23:TYR:CE2	1.087
1	O:37:ARG:HB3	O:58:LYS:CA	1.087
1	O:40:GLU:CD	O:59:GLN:NE2	1.087
1	I:3:LEU:H	I:120:GLU:N	1.087
1	K:2:LYS:HA	K:120:GLU:H	1.087
1	P:34:ASP:N	P:55:VAL:O	1.087
1	I:63:LYS:CE	I:111:PRO:O	1.087
1	N:1:MET:CE	N:119:PHE:HB3	1.086
1	K:142:TYR:N	P:139:ASN:H	1.086
1	I:131:LEU:HB3	I:132:LYS:O	1.085
1	N:40:GLU:CD	N:59:GLN:NE2	1.085
1	O:1:MET:O	O:119:PHE:CA	1.085
1	J:110:ILE:HG22	J:111:PRO:HD2	1.084
1	I:110:ILE:HG22	I:111:PRO:HD2	1.083
1	L:149:GLN:CG	O:131:LEU:CG	1.083
1	L:127:ILE:CD1	L:154:LEU:HD11	1.083
1	M:60:MET:HG3	M:61:PRO:HD2	1.083
1	N:155:LEU:HG	N:255:LYS:HD2	1.083
1	O:1:MET:CE	O:119:PHE:HB3	1.083
1	L:32:LEU:HA	L:57:GLU:HB2	1.082

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:1:MET:O	N:119:PHE:CA	1.082
1	O:1:MET:HE3	O:119:PHE:HB3	1.082
1	P:33:PHE:CZ	P:34:ASP:OD2	1.082
1	N:37:ARG:HB3	N:58:LYS:CA	1.081
1	P:36:LYS:CA	P:57:GLU:CB	1.081
1	K:149:GLN:HG3	P:131:LEU:HD23	1.080
1	L:148:ILE:HD13	O:46:TRP:CD1	1.080
1	P:1:MET:CE	P:119:PHE:HB3	1.080
1	K:63:LYS:CE	K:111:PRO:O	1.080
1	K:145:LEU:HD12	P:140:LEU:HD22	1.079
1	A:569:SER:CB	L:23:TYR:CD2	1.078
1	B:570:ALA:HA	J:23:TYR:CZ	1.077
1	K:2:LYS:CB	K:120:GLU:HB2	1.077
1	M:1:MET:CE	M:119:PHE:HB3	1.077
1	O:4:ILE:CG2	O:18:ILE:CG2	1.076
1	J:2:LYS:CB	J:120:GLU:HB2	1.075
1	L:110:ILE:HG22	L:111:PRO:HD2	1.075
1	N:60:MET:HG3	N:61:PRO:HD2	1.075
1	I:131:LEU:HD22	I:153:MET:HE2	1.074
1	L:147:ARG:CZ	O:43:LYS:NZ	1.074
1	J:63:LYS:CE	J:111:PRO:O	1.074
1	M:150:THR:HG22	M:160:CYS:SG	1.074
1	N:4:ILE:CG2	N:18:ILE:CG2	1.073

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:95:GLU:O	P:102:LEU:HD21	1.073
1	J:148:ILE:HD13	M:46:TRP:CD1	1.072
1	L:2:LYS:CB	L:120:GLU:HB2	1.072
1	N:154:LEU:HD13	N:160:CYS:CA	1.072
1	I:98:GLU:O	O:99:VAL:HG22	1.072
1	M:12:PHE:CE1	M:121:MET:HE3	1.071
1	J:146:ASP:O	M:133:LEU:HD23	1.071
1	P:1:MET:HE3	P:119:PHE:HB3	1.071
1	I:155:LEU:CD1	N:136:HIS:CA	1.070
1	I:155:LEU:N	N:136:HIS:CD2	1.070
1	J:148:ILE:N	M:133:LEU:HD22	1.069
1	N:12:PHE:CE1	N:121:MET:HE3	1.067
1	O:60:MET:HG3	O:61:PRO:HD2	1.067
1	J:97:TYR:HE1	P:100:LYS:CB	1.067
1	K:110:ILE:HG22	K:111:PRO:HD2	1.066
1	N:3:LEU:CD2	N:119:PHE:CD2	1.066
1	N:37:ARG:CB	N:58:LYS:C	1.066
1	P:12:PHE:CE1	P:121:MET:HE3	1.066
1	P:1:MET:O	P:119:PHE:CA	1.066
1	M:1:MET:O	M:119:PHE:CA	1.065
1	N:33:PHE:CD1	N:56:ILE:CG1	1.065
1	I:2:LYS:CB	I:120:GLU:HB2	1.064
1	M:37:ARG:CB	M:58:LYS:CA	1.064

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:2:LYS:HA	L:120:GLU:H	1.064
1	O:37:ARG:CB	O:58:LYS:C	1.063
1	A:569:SER:HB3	L:23:TYR:CE2	1.062
1	D:147:LYS:HG3	H:150:TYR:CE1	1.061
1	M:4:ILE:HG13	M:15:SER:O	1.061
1	N:4:ILE:HG13	N:15:SER:O	1.061
1	O:33:PHE:CD1	O:56:ILE:CG1	1.061
1	P:60:MET:HG3	P:61:PRO:HD2	1.061
1	J:98:GLU:O	P:99:VAL:CB	1.061
1	P:37:ARG:CB	P:58:LYS:CA	1.060
1	P:154:LEU:CG	P:160:CYS:HB3	1.060
1	K:80:LEU:H	K:80:LEU:HD23	1.059
1	O:4:ILE:HG13	O:15:SER:O	1.059
1	P:4:ILE:HG13	P:15:SER:O	1.059
1	G:354:ARG:CD	H:92:ASP:O	1.058
1	J:4:ILE:HG13	J:15:SER:O	1.058
1	K:142:TYR:CA	P:139:ASN:N	1.058
1	N:36:LYS:HA	N:57:GLU:HG2	1.058
1	L:80:LEU:H	L:80:LEU:HD23	1.057
1	L:127:ILE:CD1	L:154:LEU:CD1	1.057
1	N:18:ILE:H	N:18:ILE:HD13	1.056
1	O:37:ARG:CB	O:58:LYS:CA	1.056
1	I:3:LEU:N	I:120:GLU:N	1.056

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:37:ARG:CB	M:58:LYS:C	1.055
1	N:37:ARG:CB	N:58:LYS:CA	1.055
1	O:12:PHE:CE1	O:121:MET:HE3	1.055
1	O:3:LEU:H	O:120:GLU:N	1.055
1	B:569:SER:C	J:23:TYR:CD2	1.054
1	I:4:ILE:HG13	I:15:SER:O	1.054
1	J:98:GLU:CB	P:102:LEU:HD23	1.054
1	O:36:LYS:HA	O:57:GLU:HG2	1.054
1	P:3:LEU:H	P:120:GLU:N	1.054
1	K:1:MET:HE2	K:119:PHE:N	1.053
1	N:3:LEU:H	N:120:GLU:N	1.053
1	I:124:ILE:HD12	I:151:HIS:CD2	1.052
1	O:155:LEU:CG	O:255:LYS:HD3	1.052
1	O:155:LEU:CG	O:255:LYS:CE	1.052
1	I:3:LEU:H	I:120:GLU:CA	1.051
1	L:4:ILE:HG13	L:15:SER:O	1.051
1	M:33:PHE:CD1	M:56:ILE:CG1	1.051
1	O:3:LEU:CD2	O:119:PHE:CD2	1.051
1	P:33:PHE:CD1	P:56:ILE:CG1	1.051
1	J:1:MET:HE2	J:119:PHE:N	1.050
1	J:97:TYR:CE1	P:101:GLY:N	1.050
1	L:155:LEU:CD1	O:136:HIS:CB	1.050
1	N:37:ARG:CG	N:58:LYS:C	1.050

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:37:ARG:CG	O:58:LYS:C	1.050
1	P:37:ARG:CG	P:58:LYS:C	1.050
1	L:3:LEU:N	L:120:GLU:N	1.050
1	I:80:LEU:H	I:80:LEU:HD23	1.049
1	I:151:HIS:HB3	N:134:GLN:OE1	1.049
1	J:125:GLU:OE2	J:154:LEU:CB	1.049
1	L:3:LEU:H	L:120:GLU:CA	1.049
1	P:3:LEU:CD2	P:119:PHE:HD2	1.049
1	I:2:LYS:HA	I:120:GLU:H	1.049
1	L:8:THR:OG1	L:11:CYS:O	1.049
1	M:37:ARG:CG	M:58:LYS:C	1.048
1	L:142:TYR:H	O:139:ASN:N	1.048
1	M:3:LEU:H	M:120:GLU:N	1.048
1	J:148:ILE:CG2	M:133:LEU:CD1	1.047
1	K:3:LEU:H	K:120:GLU:CA	1.047
1	I:155:LEU:CG	N:136:HIS:HB3	1.047
1	N:153:MET:O	N:161:TYR:CE1	1.047
1	J:125:GLU:CD	J:154:LEU:HG	1.046
1	K:4:ILE:HG13	K:15:SER:O	1.046
1	P:37:ARG:CB	P:58:LYS:C	1.046
1	K:3:LEU:N	K:120:GLU:N	1.046
1	I:8:THR:OG1	I:11:CYS:O	1.046
1	J:80:LEU:H	J:80:LEU:HD23	1.045

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:145:LEU:HD23	O:6:ILE:CG1	1.045
1	M:36:LYS:CA	M:57:GLU:CB	1.045
1	J:1:MET:HE2	J:119:PHE:H	1.045
1	L:1:MET:HE2	L:119:PHE:N	1.044
1	M:127:ILE:CD1	M:131:LEU:CD1	1.044
1	O:150:THR:CG2	O:160:CYS:CB	1.044
1	J:3:LEU:N	J:120:GLU:N	1.044
1	I:149:GLN:HG2	N:131:LEU:HG	1.043
1	J:98:GLU:CB	P:102:LEU:CG	1.043
1	L:155:LEU:HD13	O:136:HIS:HB2	1.043
1	A:618:ALA:CB	O:23:TYR:OH	1.042
1	J:4:ILE:C	J:14:VAL:CG2	1.042
1	L:92:GLU:OE2	N:97:TYR:HE2	1.042
1	J:3:LEU:H	J:120:GLU:CA	1.041
1	O:18:ILE:H	O:18:ILE:HD13	1.041
1	O:8:THR:OG1	O:11:CYS:O	1.040
1	J:98:GLU:HA	P:99:VAL:C	1.039
1	J:1:MET:O	J:119:PHE:HA	1.039
1	K:4:ILE:C	K:14:VAL:CG2	1.039
1	N:34:ASP:N	N:55:VAL:C	1.039
1	O:4:ILE:C	O:14:VAL:CG2	1.039
1	L:255:LYS:HZ3	O:145:LEU:HD12	1.039
1	P:36:LYS:HA	P:57:GLU:HG2	1.039

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:155:LEU:CB	N:136:HIS:CG	1.038
1	J:98:GLU:HB2	P:102:LEU:HD23	1.038
1	N:4:ILE:C	N:14:VAL:CG2	1.038
1	O:1:MET:HE3	O:119:PHE:CB	1.038
1	P:127:ILE:CD1	P:131:LEU:CD1	1.038
1	I:1:MET:HE2	I:119:PHE:N	1.037
1	J:149:GLN:HB3	M:131:LEU:C	1.037
1	L:142:TYR:CD2	O:138:PHE:CA	1.037
1	D:614:HIS:CE1	K:23:TYR:CE2	1.036
1	L:147:ARG:NH2	O:43:LYS:HZ2	1.036
1	K:8:THR:OG1	K:11:CYS:O	1.036
1	I:98:GLU:CA	O:99:VAL:HA	1.035
1	I:98:GLU:HA	O:99:VAL:CA	1.035
1	O:34:ASP:N	O:55:VAL:C	1.035
1	O:127:ILE:CD1	O:131:LEU:CD1	1.035
1	K:1:MET:O	K:119:PHE:HA	1.034
1	N:1:MET:HE3	N:119:PHE:CB	1.034
1	N:127:ILE:CD1	N:131:LEU:CD1	1.034
1	J:95:GLU:O	P:102:LEU:CD2	1.034
1	M:4:ILE:C	M:14:VAL:CG2	1.033
1	M:159:PRO:HA	M:161:TYR:CD2	1.033
1	N:7:LYS:HG2	N:126:GLU:HG2	1.033
1	P:18:ILE:H	P:18:ILE:HD13	1.033

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:97:TYR:OH	P:100:LYS:HB2	1.033
1	L:1:MET:HE2	L:119:PHE:H	1.033
1	N:159:PRO:O	N:260:LEU:CD2	1.033
1	C:147:LYS:HG3	G:150:TYR:CE1	1.032
1	I:4:ILE:C	I:14:VAL:CG2	1.032
1	I:97:TYR:CE1	O:98:GLU:C	1.032
1	J:97:TYR:CZ	P:100:LYS:CB	1.032
1	K:149:GLN:HB2	P:131:LEU:O	1.032
1	L:98:GLU:HG2	N:101:GLY:C	1.032
1	M:4:ILE:CG2	M:18:ILE:CG2	1.032
1	K:1:MET:HE2	K:119:PHE:H	1.032
1	I:149:GLN:CB	N:131:LEU:HD23	1.031
1	J:131:LEU:HA	J:132:LYS:HZ2	1.031
1	M:1:MET:HE3	M:119:PHE:CB	1.031
1	M:149:GLN:NE2	N:215:MET:O	1.031
1	O:159:PRO:O	O:160:CYS:O	1.031
1	P:8:THR:OG1	P:11:CYS:O	1.031
1	L:4:ILE:C	L:14:VAL:CG2	1.030
1	P:34:ASP:N	P:55:VAL:C	1.030
1	P:37:ARG:CA	P:57:GLU:CG	1.030
1	M:8:THR:OG1	M:11:CYS:O	1.030
1	C:570:ALA:HA	I:23:TYR:CE1	1.029
1	I:145:LEU:HD13	N:140:LEU:CD2	1.029

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:97:TYR:CE1	P:100:LYS:CE	1.029
1	K:145:LEU:CD1	P:140:LEU:HD22	1.029
1	P:36:LYS:N	P:57:GLU:HB2	1.029
1	N:8:THR:OG1	N:11:CYS:O	1.029
1	I:1:MET:O	I:119:PHE:HA	1.028
1	K:92:GLU:CG	M:100:LYS:NZ	1.028
1	M:149:GLN:CD	N:215:MET:HE2	1.028
1	O:60:MET:CG	O:61:PRO:HD2	1.028
1	P:38:ALA:N	P:58:LYS:CA	1.028
1	J:8:THR:OG1	J:11:CYS:O	1.028
1	N:60:MET:CG	N:61:PRO:HD2	1.027
1	P:1:MET:HE3	P:119:PHE:CB	1.027
1	P:4:ILE:C	P:14:VAL:CG2	1.027
1	J:142:TYR:CB	M:138:PHE:C	1.026
1	P:154:LEU:CD1	P:160:CYS:CA	1.026
1	P:7:LYS:HG2	P:126:GLU:HG2	1.025
1	J:97:TYR:HE1	P:100:LYS:CA	1.025
1	L:147:ARG:HH22	O:43:LYS:CG	1.025
1	O:7:LYS:HG2	O:126:GLU:HG2	1.024
1	I:1:MET:HE2	I:119:PHE:H	1.024
1	J:31:LEU:O	J:57:GLU:CB	1.023
1	L:131:LEU:CB	L:132:LYS:O	1.023
1	M:1:MET:HE2	M:118:GLU:C	1.023

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:1:MET:HG2	N:119:PHE:CB	1.023
1	N:3:LEU:HD13	N:28:LEU:HD21	1.023
1	P:60:MET:CG	P:61:PRO:HD2	1.023
1	K:31:LEU:O	K:57:GLU:CB	1.022
1	L:125:GLU:HB2	L:154:LEU:HD21	1.022
1	M:34:ASP:N	M:55:VAL:C	1.022
1	M:38:ALA:N	M:58:LYS:CA	1.022
1	O:3:LEU:HD13	O:28:LEU:HD21	1.022
1	I:149:GLN:OE1	N:132:LYS:N	1.022
1	K:98:GLU:HA	M:98:GLU:C	1.021
1	M:2:LYS:CB	M:120:GLU:HB2	1.021
1	M:36:LYS:HA	M:57:GLU:HG2	1.021
1	P:1:MET:HE2	P:118:GLU:C	1.021
1	I:28:LEU:O	I:56:ILE:O	1.021
1	L:28:LEU:O	L:56:ILE:O	1.021
1	N:153:MET:SD	N:161:TYR:HE1	1.020
1	M:36:LYS:N	M:57:GLU:HB2	1.019
1	L:255:LYS:NZ	O:145:LEU:HD12	1.019
1	P:2:LYS:CB	P:120:GLU:HB2	1.019
1	L:1:MET:O	L:119:PHE:HA	1.018
1	L:149:GLN:CD	O:131:LEU:HD23	1.018
1	M:7:LYS:HG2	M:126:GLU:HG2	1.018
1	N:37:ARG:CA	N:58:LYS:CA	1.018

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:1:MET:HG2	O:119:PHE:CB	1.018
1	O:150:THR:HG22	O:160:CYS:SG	1.018
1	N:155:LEU:HG	N:255:LYS:HD3	1.017
1	O:2:LYS:CB	O:120:GLU:HB2	1.017
1	O:37:ARG:CA	O:58:LYS:CA	1.017
1	P:37:ARG:CA	P:58:LYS:CA	1.017
1	I:1:MET:HG2	I:119:PHE:CB	1.016
1	M:1:MET:HG2	M:119:PHE:CB	1.016
1	N:36:LYS:N	N:57:GLU:HB2	1.016
1	P:29:ASP:OD1	P:59:GLN:HG2	1.016
1	L:1:MET:HG2	L:119:PHE:CB	1.015
1	M:37:ARG:CA	M:58:LYS:CA	1.015
1	K:28:LEU:O	K:56:ILE:O	1.015
1	O:36:LYS:N	O:57:GLU:HB2	1.014
1	M:60:MET:CG	M:61:PRO:HD2	1.013
1	N:1:MET:HE2	N:118:GLU:C	1.013
1	B:569:SER:CA	J:23:TYR:CD2	1.012
1	J:1:MET:HG2	J:119:PHE:CB	1.012
1	J:31:LEU:HA	J:56:ILE:HD12	1.012
1	J:98:GLU:CB	P:102:LEU:CD2	1.012
1	J:28:LEU:O	J:56:ILE:O	1.012
1	A:147:LYS:HG3	E:150:TYR:CE1	1.011
1	M:2:LYS:HB3	M:120:GLU:HB2	1.010

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:29:ASP:OD1	O:59:GLN:HG2	1.010
1	I:161:TYR:CE1	N:141:ASN:N	1.009
1	J:7:LYS:CB	J:126:GLU:HG2	1.009
1	J:145:LEU:HG	M:125:GLU:OE2	1.009
1	O:155:LEU:CD1	O:255:LYS:CD	1.009
1	P:1:MET:HG2	P:119:PHE:CB	1.009
1	L:31:LEU:HA	L:56:ILE:HD12	1.008
1	L:149:GLN:CG	O:131:LEU:CD2	1.008
1	M:18:ILE:H	M:18:ILE:HD13	1.008
1	K:1:MET:HG2	K:119:PHE:CB	1.007
1	K:92:GLU:HB3	M:100:LYS:HZ2	1.007
1	M:29:ASP:OD1	M:59:GLN:HG2	1.007
1	N:2:LYS:CB	N:120:GLU:HB2	1.007
1	K:7:LYS:CB	K:126:GLU:HG2	1.006
1	K:31:LEU:HA	K:56:ILE:HD12	1.006
1	K:140:LEU:HD21	P:138:PHE:CZ	1.006
1	O:1:MET:HE2	O:118:GLU:C	1.006
1	K:5:GLY:N	K:14:VAL:HG23	1.005
1	K:1:MET:HE3	K:119:PHE:HB3	1.004
1	M:3:LEU:CD2	M:119:PHE:HD2	1.004
1	P:3:LEU:HD13	P:28:LEU:HD21	1.004
1	I:1:MET:HE3	I:119:PHE:HB3	1.003
1	I:149:GLN:CG	N:131:LEU:CG	1.003

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:1:MET:HE3	J:119:PHE:HB3	1.003
1	J:97:TYR:CD1	P:101:GLY:N	1.003
1	N:153:MET:O	N:161:TYR:CD1	1.003
1	G:357:LYS:HZ2	H:91:ASN:N	1.003
1	L:154:LEU:N	O:136:HIS:CE1	1.002
1	J:5:GLY:N	J:14:VAL:HG23	1.001
1	D:614:HIS:CD2	K:23:TYR:CZ	1.000
1	K:142:TYR:HB2	P:139:ASN:CA	1.000
1	L:1:MET:HE3	L:119:PHE:HB3	1.000
1	J:151:HIS:O	M:136:HIS:CE1	1.000
1	N:127:ILE:HD12	N:131:LEU:CD1	1.000
1	O:155:LEU:HG	O:255:LYS:HD3	1.000
1	N:29:ASP:OD1	N:59:GLN:HG2	0.999
1	L:149:GLN:OE1	O:131:LEU:HD23	0.999
1	B:147:LYS:HG3	F:150:TYR:CE1	0.998
1	G:92:ASP:O	H:354:ARG:CD	0.998
1	O:127:ILE:HD12	O:131:LEU:CD1	0.998
1	K:4:ILE:O	K:15:SER:N	0.998
1	I:31:LEU:HA	I:56:ILE:HD12	0.997
1	I:31:LEU:O	I:57:GLU:CB	0.997
1	L:31:LEU:O	L:57:GLU:CB	0.997
1	M:3:LEU:HD13	M:28:LEU:HD21	0.997
1	I:7:LYS:CB	I:126:GLU:HG2	0.996

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:4:ILE:O	J:15:SER:N	0.996
1	M:149:GLN:CD	N:215:MET:HE1	0.995
1	O:5:GLY:N	O:14:VAL:HG23	0.995
1	N:5:GLY:N	N:14:VAL:HG23	0.994
1	O:155:LEU:CG	O:255:LYS:HE3	0.994
1	P:2:LYS:HB3	P:120:GLU:HB2	0.994
1	P:154:LEU:CD2	P:255:LYS:C	0.994
1	O:159:PRO:CA	O:254:GLY:N	0.994
1	J:145:LEU:HD11	M:127:ILE:HD11	0.993
1	L:7:LYS:CB	L:126:GLU:HG2	0.993
1	L:142:TYR:CD2	O:138:PHE:CB	0.993
1	J:148:ILE:CG2	M:133:LEU:HD13	0.992
1	K:149:GLN:CB	P:131:LEU:CD2	0.991
1	J:12:PHE:CE1	J:121:MET:HE3	0.990
1	K:12:PHE:CE1	K:121:MET:HE3	0.990
1	I:98:GLU:HB3	O:99:VAL:HG13	0.988
1	P:3:LEU:CD2	P:119:PHE:CD2	0.988
1	I:5:GLY:HA2	I:14:VAL:HA	0.987
1	L:5:GLY:N	L:14:VAL:HG23	0.987
1	I:37:ARG:HG3	I:57:GLU:CG	0.986
1	I:155:LEU:CA	N:136:HIS:CD2	0.986
1	D:569:SER:O	K:23:TYR:CD2	0.986
1	M:37:ARG:CD	M:58:LYS:O	0.986

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:12:PHE:CE1	I:121:MET:HE3	0.985
1	J:37:ARG:HG3	J:57:GLU:CG	0.985
1	K:37:ARG:HG3	K:57:GLU:CG	0.985
1	L:12:PHE:CE1	L:121:MET:HE3	0.985
1	L:5:GLY:HA2	L:14:VAL:HA	0.984
1	L:37:ARG:HG3	L:57:GLU:CG	0.984
1	P:37:ARG:CD	P:58:LYS:O	0.984
1	L:4:ILE:O	L:15:SER:N	0.984
1	N:4:ILE:O	N:15:SER:N	0.984
1	I:5:GLY:N	I:14:VAL:HG23	0.982
1	J:5:GLY:HA2	J:14:VAL:HA	0.982
1	N:2:LYS:HB3	N:120:GLU:HB2	0.982
1	O:4:ILE:O	O:15:SER:N	0.982
1	O:5:GLY:HA2	O:14:VAL:HA	0.981
1	K:2:LYS:C	K:120:GLU:H	0.981
1	M:32:LEU:H	M:116:LYS:HD3	0.980
1	O:2:LYS:HB3	O:120:GLU:HB2	0.980
1	O:150:THR:HG23	O:160:CYS:CB	0.980
1	J:2:LYS:C	J:120:GLU:H	0.980
1	J:92:GLU:O	P:101:GLY:HA3	0.979
1	M:5:GLY:N	M:14:VAL:HG23	0.978
1	P:5:GLY:N	P:14:VAL:HG23	0.978
1	I:4:ILE:O	I:15:SER:N	0.978

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	C:570:ALA:HA	I:23:TYR:CZ	0.976
1	D:570:ALA:CA	K:23:TYR:CZ	0.976
1	O:36:LYS:N	O:57:GLU:CB	0.976
1	L:2:LYS:C	L:120:GLU:H	0.976
1	M:4:ILE:O	M:15:SER:N	0.976
1	I:98:GLU:HG2	O:102:LEU:CB	0.975
1	I:149:GLN:CD	N:132:LYS:O	0.975
1	J:32:LEU:CA	J:57:GLU:HB2	0.975
1	N:5:GLY:HA2	N:14:VAL:HA	0.975
1	N:37:ARG:CD	N:58:LYS:O	0.975
1	N:36:LYS:N	N:57:GLU:CB	0.975
1	O:159:PRO:CB	O:254:GLY:N	0.975
1	I:97:TYR:C	O:98:GLU:O	0.974
1	K:32:LEU:CA	K:57:GLU:HB2	0.974
1	I:155:LEU:N	N:136:HIS:CE1	0.974
1	O:127:ILE:HD12	O:131:LEU:HD12	0.974
1	K:5:GLY:HA2	K:14:VAL:HA	0.973
1	L:1:MET:CE	L:119:PHE:N	0.973
1	M:150:THR:HB	M:158:LYS:HG2	0.973
1	O:38:ALA:N	O:58:LYS:CA	0.973
1	M:5:GLY:HA2	M:14:VAL:HA	0.972
1	I:2:LYS:CA	I:120:GLU:HB2	0.971
1	I:149:GLN:HB2	N:132:LYS:CA	0.971

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:149:GLN:HB3	P:131:LEU:CD2	0.971
1	L:2:LYS:CA	L:120:GLU:HB2	0.971
1	L:37:ARG:HG2	L:57:GLU:CB	0.971
1	M:127:ILE:HD12	M:131:LEU:CD1	0.971
1	N:127:ILE:HD12	N:131:LEU:HD12	0.971
1	O:37:ARG:CD	O:58:LYS:O	0.971
1	O:33:PHE:HD1	O:56:ILE:HG13	0.971
1	I:1:MET:CE	I:119:PHE:N	0.970
1	P:5:GLY:HA2	P:14:VAL:HA	0.970
1	M:3:LEU:N	M:120:GLU:N	0.970
1	P:4:ILE:O	P:15:SER:N	0.970
1	I:37:ARG:HG2	I:57:GLU:CB	0.969
1	J:140:LEU:O	M:138:PHE:CD1	0.969
1	P:127:ILE:HD12	P:131:LEU:CD1	0.969
1	I:2:LYS:C	I:120:GLU:H	0.969
1	K:37:ARG:HG2	K:57:GLU:CB	0.968
1	N:38:ALA:N	N:58:LYS:CA	0.968
1	P:150:THR:HB	P:158:LYS:HG2	0.968
1	L:147:ARG:HH22	O:43:LYS:HG3	0.968
1	D:618:ALA:HB2	P:23:TYR:OH	0.967
1	K:142:TYR:N	P:139:ASN:N	0.967
1	J:2:LYS:HB3	J:120:GLU:HB2	0.966
1	K:2:LYS:HB3	K:120:GLU:HB2	0.966

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:32:LEU:CA	L:57:GLU:HB2	0.966
1	M:36:LYS:N	M:57:GLU:CB	0.966
1	P:32:LEU:H	P:116:LYS:HD3	0.966
1	N:3:LEU:N	N:120:GLU:N	0.966
1	C:618:ALA:CB	N:23:TYR:OH	0.965
1	O:3:LEU:N	O:120:GLU:N	0.965
1	I:142:TYR:CB	N:138:PHE:C	0.963
1	J:37:ARG:HG2	J:57:GLU:CB	0.963
1	K:2:LYS:CA	K:120:GLU:HB2	0.963
1	O:153:MET:HB2	O:156:GLU:CD	0.963
1	P:155:LEU:HD12	P:255:LYS:HA	0.963
1	M:4:ILE:CD1	M:18:ILE:CA	0.962
1	L:97:TYR:HE1	N:100:LYS:HE3	0.962
1	I:32:LEU:CA	I:57:GLU:HB2	0.961
1	P:26:SER:HB3	P:45:ASP:CA	0.961
1	K:149:GLN:HB3	P:131:LEU:HD23	0.961
1	P:3:LEU:N	P:120:GLU:N	0.961
1	L:145:LEU:HD23	O:6:ILE:HG12	0.960
1	N:33:PHE:HD1	N:56:ILE:HG13	0.960
1	N:150:THR:HB	N:158:LYS:HG2	0.960
1	N:154:LEU:HD13	N:160:CYS:CB	0.960
1	I:142:TYR:H	N:139:ASN:H	0.960
1	L:145:LEU:CD1	O:127:ILE:HD11	0.959

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:147:ARG:HH22	M:43:LYS:HG3	0.959
1	I:97:TYR:CD1	O:98:GLU:C	0.958
1	L:97:TYR:CE2	N:98:GLU:HA	0.958
1	M:153:MET:HB2	M:156:GLU:CD	0.958
1	I:97:TYR:O	O:98:GLU:CB	0.958
1	M:127:ILE:HD12	M:131:LEU:HD12	0.957
1	I:149:GLN:OE1	N:132:LYS:O	0.957
1	J:2:LYS:CA	J:120:GLU:HB2	0.956
1	K:98:GLU:HG3	M:99:VAL:HA	0.956
1	M:4:ILE:HG12	M:18:ILE:HG23	0.956
1	M:26:SER:HB3	M:45:ASP:CA	0.956
1	O:150:THR:HB	O:158:LYS:HG2	0.956
1	J:110:ILE:CG2	J:111:PRO:HD2	0.954
1	L:2:LYS:HB3	L:120:GLU:HB2	0.954
1	N:153:MET:HB2	N:156:GLU:CD	0.954
1	O:37:ARG:HD3	O:58:LYS:C	0.953
1	P:4:ILE:HG12	P:18:ILE:HG23	0.953
1	P:37:ARG:HD3	P:58:LYS:C	0.953
1	M:33:PHE:HE1	M:53:PRO:CG	0.953
1	M:37:ARG:HD3	M:58:LYS:C	0.952
1	P:153:MET:HB2	P:156:GLU:CD	0.952
1	I:110:ILE:CG2	I:111:PRO:HD2	0.951
1	J:15:SER:CB	J:46:TRP:CZ2	0.951

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:110:ILE:CG2	K:111:PRO:HD2	0.951
1	N:37:ARG:HD3	N:58:LYS:C	0.951
1	P:127:ILE:HD12	P:131:LEU:HD12	0.951
1	D:569:SER:CB	K:23:TYR:HD2	0.951
1	I:2:LYS:HB3	I:120:GLU:HB2	0.950
1	O:32:LEU:H	O:116:LYS:HD3	0.950
1	K:15:SER:CB	K:46:TRP:CZ2	0.949
1	K:97:TYR:CD1	M:98:GLU:O	0.949
1	L:149:GLN:CB	O:131:LEU:CB	0.949
1	M:150:THR:O	M:158:LYS:HB3	0.949
1	O:26:SER:HB3	O:45:ASP:CA	0.949
1	L:98:GLU:HG2	N:102:LEU:CA	0.948
1	M:154:LEU:O	M:159:PRO:CA	0.948
1	P:33:PHE:HE1	P:53:PRO:CG	0.948
1	K:149:GLN:HB3	P:131:LEU:HB3	0.947
1	L:110:ILE:CG2	L:111:PRO:HD2	0.947
1	M:3:LEU:CD2	M:119:PHE:CD2	0.947
1	N:26:SER:HB3	N:45:ASP:CA	0.947
1	P:36:LYS:N	P:57:GLU:CB	0.947
1	P:150:THR:O	P:158:LYS:HB3	0.947
1	L:15:SER:CB	L:46:TRP:CZ2	0.946
1	P:4:ILE:CD1	P:18:ILE:CA	0.946
1	I:15:SER:CB	I:46:TRP:CZ2	0.945

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:32:LEU:H	N:116:LYS:HD3	0.945
1	J:97:TYR:HE1	P:100:LYS:C	0.945
1	O:33:PHE:HE1	O:53:PRO:CG	0.945
1	O:4:ILE:HG12	O:18:ILE:HG23	0.944
1	O:154:LEU:O	O:159:PRO:HG3	0.944
1	M:3:LEU:CD1	M:119:PHE:CZ	0.943
1	O:153:MET:C	O:161:TYR:CZ	0.943
1	J:97:TYR:CE1	P:100:LYS:C	0.942
1	N:154:LEU:O	N:159:PRO:HG3	0.942
1	O:37:ARG:CA	O:57:GLU:CG	0.942
1	I:98:GLU:CG	O:102:LEU:HB2	0.942
1	P:154:LEU:O	P:159:PRO:CA	0.942
1	L:5:GLY:HA2	L:14:VAL:CA	0.941
1	M:159:PRO:CD	M:161:TYR:CD2	0.941
1	N:159:PRO:CD	N:161:TYR:CD2	0.941
1	O:159:PRO:HB2	O:254:GLY:CA	0.941
1	K:148:ILE:HD13	P:46:TRP:CE2	0.940
1	N:154:LEU:O	N:159:PRO:CA	0.940
1	O:150:THR:O	O:158:LYS:HB3	0.940
1	M:154:LEU:O	M:159:PRO:CG	0.938
1	N:4:ILE:HG12	N:18:ILE:HG23	0.938
1	N:33:PHE:HE1	N:53:PRO:CG	0.938
1	J:147:ARG:C	M:133:LEU:CD2	0.937

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:150:THR:O	N:158:LYS:HB3	0.937
1	O:154:LEU:O	O:159:PRO:CG	0.937
1	I:5:GLY:HA2	I:14:VAL:CA	0.936
1	L:145:LEU:HD11	O:127:ILE:HD11	0.936
1	J:149:GLN:OE1	M:133:LEU:CD1	0.936
1	P:33:PHE:HD1	P:56:ILE:HG13	0.936
1	P:154:LEU:O	P:159:PRO:CG	0.936
1	J:142:TYR:HB2	M:138:PHE:O	0.935
1	L:98:GLU:HG2	N:102:LEU:H	0.935
1	N:154:LEU:O	N:159:PRO:CG	0.935
1	N:3:LEU:HD22	N:119:PHE:CD2	0.934
1	O:6:ILE:N	O:13:LEU:O	0.934
1	J:131:LEU:HA	J:132:LYS:NZ	0.933
1	D:569:SER:O	K:23:TYR:CE1	0.933
1	O:3:LEU:HD22	O:119:PHE:CD2	0.933
1	J:92:GLU:O	P:101:GLY:CA	0.933
1	L:97:TYR:OH	N:100:LYS:CB	0.933
1	K:148:ILE:HD13	P:46:TRP:NE1	0.932
1	N:6:ILE:N	N:13:LEU:O	0.932
1	O:154:LEU:O	O:159:PRO:CA	0.931
1	P:7:LYS:CG	P:126:GLU:HG2	0.931
1	J:97:TYR:CD1	P:100:LYS:CE	0.930
1	M:7:LYS:CG	M:126:GLU:HG2	0.930

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:15:SER:HB3	M:46:TRP:CE2	0.930
1	N:7:LYS:CG	N:126:GLU:HG2	0.930
1	O:7:LYS:CG	O:126:GLU:HG2	0.930
1	I:143:ASN:HD22	N:140:LEU:HD12	0.930
1	O:4:ILE:CD1	O:18:ILE:CA	0.929
1	I:98:GLU:N	O:98:GLU:O	0.929
1	L:154:LEU:N	O:134:GLN:OE1	0.929
1	J:145:LEU:HD23	M:6:ILE:CG1	0.928
1	M:154:LEU:O	M:159:PRO:HG3	0.928
1	I:98:GLU:HG3	O:99:VAL:HA	0.927
1	J:5:GLY:HA2	J:14:VAL:CA	0.927
1	P:5:GLY:HA2	P:14:VAL:CA	0.927
1	P:15:SER:HB3	P:46:TRP:CE2	0.927
1	P:154:LEU:O	P:159:PRO:HG3	0.926
1	L:97:TYR:HE1	N:100:LYS:CE	0.926
1	I:68:ARG:HG2	I:68:ARG:HH11	0.925
1	I:83:LYS:HB3	I:83:LYS:HZ2	0.925
1	I:145:LEU:CD1	N:140:LEU:CD2	0.925
1	I:6:ILE:N	I:13:LEU:O	0.925
1	D:569:SER:C	K:23:TYR:CZ	0.924
1	J:145:LEU:HD21	M:6:ILE:HG21	0.924
1	K:1:MET:CE	K:119:PHE:N	0.924
1	P:3:LEU:CD1	P:119:PHE:CZ	0.924

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:6:ILE:N	L:13:LEU:O	0.924
1	J:125:GLU:OE2	J:154:LEU:HB2	0.923
1	K:131:LEU:CD2	K:153:MET:CE	0.923
1	K:143:ASN:OD1	P:140:LEU:CD1	0.923
1	M:6:ILE:N	M:13:LEU:O	0.923
1	P:6:ILE:N	P:13:LEU:O	0.923
1	J:149:GLN:HB3	M:132:LYS:N	0.922
1	I:155:LEU:HD13	N:136:HIS:HB3	0.922
1	O:15:SER:HB3	O:46:TRP:CE2	0.922
1	I:55:VAL:HA	I:55:VAL:N	0.922
1	I:105:LEU:H	I:105:LEU:HD23	0.921
1	K:5:GLY:HA2	K:14:VAL:CA	0.921
1	K:142:TYR:HB2	P:138:PHE:O	0.921
1	N:5:GLY:HA2	N:14:VAL:CA	0.921
1	O:5:GLY:HA2	O:14:VAL:CA	0.921
1	G:91:ASN:N	H:357:LYS:NZ	0.921
1	I:32:LEU:HD21	I:57:GLU:HG2	0.920
1	K:147:ARG:CZ	P:43:LYS:NZ	0.920
1	L:105:LEU:H	L:105:LEU:HD23	0.920
1	N:33:PHE:HE1	N:53:PRO:CA	0.920
1	L:6:ILE:HD12	L:46:TRP:CH2	0.919
1	L:147:ARG:NH2	O:43:LYS:HG3	0.919
1	P:154:LEU:HD13	P:160:CYS:SG	0.919

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	D:614:HIS:ND1	K:23:TYR:OH	0.919
1	I:6:ILE:HD12	I:46:TRP:CH2	0.918
1	N:154:LEU:HD21	N:256:ASP:N	0.918
1	K:149:GLN:CG	P:131:LEU:HG	0.918
1	J:6:ILE:N	J:13:LEU:O	0.918
1	J:105:LEU:H	J:105:LEU:HD23	0.917
1	P:3:LEU:HD22	P:119:PHE:CD2	0.917
1	O:156:GLU:N	O:161:TYR:OH	0.917
1	J:130:GLU:O	J:132:LYS:HD3	0.917
1	D:618:ALA:HB1	P:23:TYR:OH	0.916
1	J:1:MET:CE	J:119:PHE:N	0.916
1	L:32:LEU:HD21	L:57:GLU:HG2	0.916
1	L:68:ARG:HG2	L:68:ARG:HH11	0.916
1	N:15:SER:HB3	N:46:TRP:CE2	0.916
1	L:255:LYS:HZ1	O:145:LEU:HD11	0.916
1	O:159:PRO:C	O:260:LEU:CD2	0.916
1	M:5:GLY:HA2	M:14:VAL:CA	0.915
1	N:3:LEU:CD1	N:28:LEU:HD21	0.915
1	O:3:LEU:CD1	O:28:LEU:HD21	0.915
1	O:33:PHE:HD1	O:56:ILE:CG1	0.915
1	I:31:LEU:HA	I:56:ILE:HD13	0.914
1	I:147:ARG:CZ	N:43:LYS:CD	0.914
1	K:105:LEU:H	K:105:LEU:HD23	0.914

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:148:ILE:HD11	O:46:TRP:NE1	0.914
1	N:37:ARG:CA	N:57:GLU:CG	0.914
1	J:98:GLU:C	P:99:VAL:HA	0.914
1	M:155:LEU:N	M:161:TYR:OH	0.914
1	I:98:GLU:CG	O:99:VAL:HA	0.913
1	N:32:LEU:CA	N:57:GLU:HA	0.913
1	O:33:PHE:HE1	O:53:PRO:CA	0.913
1	L:142:TYR:N	O:139:ASN:HD22	0.913
1	J:68:ARG:HG2	J:68:ARG:HH11	0.912
1	L:97:TYR:CE1	N:100:LYS:NZ	0.912
1	N:4:ILE:CD1	N:18:ILE:CA	0.912
1	N:33:PHE:HD1	N:56:ILE:CG1	0.912
1	K:98:GLU:CB	M:99:VAL:HA	0.911
1	L:31:LEU:HA	L:56:ILE:HD13	0.911
1	M:3:LEU:HD22	M:119:PHE:CD2	0.911
1	N:159:PRO:HA	N:161:TYR:CD2	0.911
1	O:32:LEU:CA	O:57:GLU:HA	0.911
1	J:6:ILE:HG12	J:154:LEU:CD2	0.910
1	J:6:ILE:HD12	J:46:TRP:CH2	0.910
1	K:147:ARG:HH22	P:43:LYS:HG3	0.910
1	L:55:VAL:HA	L:55:VAL:N	0.910
1	J:55:VAL:HA	J:55:VAL:N	0.909
1	J:147:ARG:NH2	M:43:LYS:HG3	0.909

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:155:LEU:CD1	M:136:HIS:O	0.908
1	K:6:ILE:HD12	K:46:TRP:CH2	0.908
1	K:6:ILE:N	K:13:LEU:O	0.908
1	D:570:ALA:HA	K:23:TYR:CE1	0.907
1	K:98:GLU:HG3	M:98:GLU:O	0.907
1	K:142:TYR:CB	P:139:ASN:CA	0.907
1	L:149:GLN:HB2	O:131:LEU:HB3	0.907
1	P:2:LYS:C	P:120:GLU:H	0.907
1	L:148:ILE:HB	O:133:LEU:HD11	0.906
1	M:2:LYS:C	M:120:GLU:H	0.906
1	L:32:LEU:HA	L:57:GLU:HB3	0.905
1	L:145:LEU:CD2	O:6:ILE:HD13	0.905
1	M:150:THR:HG21	M:160:CYS:SG	0.905
1	O:2:LYS:C	O:120:GLU:H	0.905
1	A:569:SER:CB	L:23:TYR:CE2	0.904
1	I:32:LEU:HA	I:57:GLU:HB3	0.904
1	K:68:ARG:HG2	K:68:ARG:HH11	0.904
1	J:3:LEU:N	J:120:GLU:O	0.904
1	N:2:LYS:C	N:120:GLU:H	0.904
1	K:32:LEU:HD21	K:57:GLU:HG2	0.903
1	K:131:LEU:HD22	K:153:MET:HE2	0.903
1	M:33:PHE:HD1	M:56:ILE:HG13	0.903
1	P:33:PHE:HE1	P:53:PRO:CA	0.903

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:3:LEU:CD1	M:28:LEU:HD21	0.902
1	D:570:ALA:HA	K:23:TYR:OH	0.901
1	J:67:HIS:HA	J:108:GLU:HG3	0.901
1	K:32:LEU:HA	K:57:GLU:HB3	0.901
1	K:31:LEU:HA	K:56:ILE:HD13	0.900
1	N:37:ARG:C	N:58:LYS:HA	0.900
1	O:37:ARG:C	O:58:LYS:HA	0.900
1	O:153:MET:SD	O:161:TYR:CE1	0.900
1	K:3:LEU:N	K:120:GLU:O	0.900
1	P:3:LEU:CD1	P:28:LEU:HD21	0.899
1	L:147:ARG:NH2	O:43:LYS:NZ	0.899
1	J:32:LEU:HA	J:57:GLU:HB3	0.898
1	K:12:PHE:CE1	K:52:GLU:HG3	0.898
1	D:614:HIS:CE1	K:23:TYR:HH	0.897
1	M:37:ARG:HB3	M:58:LYS:HA	0.897
1	J:149:GLN:HE21	M:131:LEU:HB3	0.897
1	A:569:SER:HB3	L:23:TYR:HD2	0.896
1	J:12:PHE:CE1	J:52:GLU:HG3	0.896
1	I:3:LEU:N	I:120:GLU:O	0.896
1	I:124:ILE:HD12	I:151:HIS:NE2	0.895
1	K:150:THR:CA	P:132:LYS:O	0.895
1	J:143:ASN:ND2	M:140:LEU:CD1	0.895
1	K:67:HIS:HA	K:108:GLU:HG3	0.894

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	P:153:MET:O	P:161:TYR:CZ	0.894
1	B:569:SER:CB	J:23:TYR:HD2	0.894
1	L:142:TYR:HD2	O:138:PHE:O	0.894
1	M:33:PHE:HE1	M:53:PRO:CA	0.894
1	I:12:PHE:CE1	I:52:GLU:HG3	0.893
1	I:3:LEU:O	I:120:GLU:C	0.893
1	J:32:LEU:HD21	J:57:GLU:HG2	0.893
1	L:12:PHE:CE1	L:52:GLU:HG3	0.893
1	K:151:HIS:O	P:136:HIS:NE2	0.893
1	M:7:LYS:HB3	M:126:GLU:HA	0.891
1	M:68:ARG:HG2	M:68:ARG:HH11	0.891
1	K:142:TYR:H	P:139:ASN:H	0.891
1	L:3:LEU:N	L:120:GLU:O	0.891
1	J:31:LEU:HA	J:56:ILE:HD13	0.890
1	K:55:VAL:HA	K:55:VAL:N	0.890
1	N:37:ARG:HB3	N:58:LYS:HA	0.890
1	O:155:LEU:CG	O:255:LYS:HD2	0.890
1	K:3:LEU:H	K:120:GLU:C	0.890
1	B:569:SER:O	J:23:TYR:CD2	0.889
1	K:3:LEU:O	K:120:GLU:C	0.889
1	L:3:LEU:O	L:120:GLU:C	0.889
1	L:145:LEU:HD23	O:6:ILE:HD11	0.889
1	I:147:ARG:HH22	N:43:LYS:HG3	0.889

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	P:37:ARG:C	P:58:LYS:HA	0.889
1	J:3:LEU:H	J:120:GLU:C	0.889
1	I:2:LYS:HA	I:120:GLU:HB2	0.888
1	K:32:LEU:HD22	K:57:GLU:HG2	0.888
1	J:97:TYR:HD1	P:101:GLY:H	0.888
1	I:149:GLN:HB3	N:131:LEU:C	0.887
1	O:29:ASP:OD1	O:59:GLN:CG	0.887
1	K:151:HIS:O	P:136:HIS:ND1	0.887
1	I:15:SER:CB	I:46:TRP:CE2	0.886
1	J:7:LYS:HG2	J:126:GLU:CG	0.886
1	J:3:LEU:O	J:120:GLU:C	0.886
1	K:7:LYS:HG2	K:126:GLU:CG	0.886
1	L:15:SER:CB	L:46:TRP:CE2	0.886
1	N:154:LEU:O	N:159:PRO:CB	0.886
1	O:154:LEU:O	O:159:PRO:CB	0.886
1	O:159:PRO:HG2	O:253:SER:HB3	0.886
1	N:29:ASP:OD1	N:59:GLN:CG	0.885
1	L:255:LYS:HZ1	O:145:LEU:CD1	0.885
1	P:37:ARG:HB3	P:58:LYS:HA	0.885
1	G:91:ASN:H	H:357:LYS:HZ2	0.885
1	K:7:LYS:N	K:125:GLU:O	0.885
1	J:12:PHE:CD1	J:52:GLU:HA	0.884
1	J:148:ILE:CD1	M:46:TRP:CE2	0.884

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:148:ILE:HG22	M:133:LEU:HD12	0.884
1	K:12:PHE:CD1	K:52:GLU:HA	0.884
1	N:154:LEU:HD13	N:160:CYS:HB3	0.884
1	P:154:LEU:O	P:159:PRO:CB	0.884
1	G:357:LYS:NZ	H:91:ASN:N	0.884
1	M:2:LYS:HA	M:120:GLU:H	0.884
1	L:2:LYS:HA	L:120:GLU:HB2	0.883
1	L:1:MET:SD	L:119:PHE:HB3	0.883
1	P:7:LYS:HB3	P:126:GLU:HA	0.883
1	J:100:LYS:NZ	P:99:VAL:N	0.883
1	P:2:LYS:HA	P:120:GLU:H	0.883
1	I:1:MET:SD	I:119:PHE:HB3	0.882
1	L:12:PHE:CD1	L:52:GLU:HA	0.882
1	L:143:ASN:HB3	O:140:LEU:HD22	0.882
1	J:7:LYS:N	J:125:GLU:O	0.882
1	I:12:PHE:CD1	I:52:GLU:HA	0.881
1	G:357:LYS:HZ2	H:91:ASN:H	0.881
1	I:67:HIS:HA	I:108:GLU:HG3	0.880
1	K:15:SER:CB	K:46:TRP:CE2	0.880
1	M:154:LEU:O	M:159:PRO:CB	0.880
1	O:68:ARG:HG2	O:68:ARG:HH11	0.880
1	P:68:ARG:HG2	P:68:ARG:HH11	0.880
1	O:149:GLN:NE2	P:215:MET:C	0.880

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:2:LYS:HA	N:120:GLU:H	0.880
1	J:15:SER:CB	J:46:TRP:CE2	0.879
1	L:55:VAL:C	L:55:VAL:HA	0.879
1	M:43:LYS:HG2	M:45:ASP:OD1	0.879
1	N:36:LYS:HA	N:57:GLU:CG	0.879
1	I:7:LYS:N	I:125:GLU:O	0.879
1	J:97:TYR:OH	P:96:TYR:O	0.879
1	M:4:ILE:HD11	M:18:ILE:N	0.878
1	M:37:ARG:C	M:58:LYS:HA	0.878
1	L:7:LYS:N	L:125:GLU:O	0.878
1	L:3:LEU:H	L:120:GLU:C	0.877
1	N:4:ILE:HD11	N:18:ILE:N	0.877
1	O:37:ARG:HB3	O:58:LYS:HA	0.877
1	O:2:LYS:HA	O:120:GLU:H	0.877
1	I:55:VAL:C	I:55:VAL:HA	0.876
1	L:7:LYS:HG2	L:126:GLU:CG	0.876
1	N:43:LYS:HG2	N:45:ASP:OD1	0.876
1	O:4:ILE:HD11	O:18:ILE:N	0.876
1	O:182:LYS:HD3	O:204:LYS:HB3	0.876
1	I:97:TYR:OH	O:96:TYR:O	0.876
1	N:68:ARG:HG2	N:68:ARG:HH11	0.875
1	O:37:ARG:CA	O:57:GLU:C	0.875
1	I:142:TYR:CB	N:139:ASN:N	0.874

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:125:GLU:CD	J:154:LEU:CB	0.874
1	K:1:MET:SD	K:119:PHE:HB3	0.874
1	L:67:HIS:HA	L:108:GLU:HG3	0.874
1	P:4:ILE:HD11	P:18:ILE:N	0.874
1	I:3:LEU:H	I:120:GLU:C	0.874
1	I:98:GLU:CB	O:99:VAL:HA	0.873
1	L:98:GLU:CG	N:101:GLY:C	0.873
1	L:131:LEU:HG	L:156:GLU:OE1	0.873
1	M:37:ARG:CA	M:57:GLU:CG	0.873
1	J:2:LYS:HA	J:120:GLU:HB2	0.872
1	P:29:ASP:OD1	P:59:GLN:CG	0.872
1	P:127:ILE:HD13	P:131:LEU:HD12	0.872
1	J:32:LEU:HD22	J:57:GLU:HG2	0.871
1	J:97:TYR:CZ	P:100:LYS:CA	0.871
1	M:29:ASP:OD1	M:59:GLN:CG	0.871
1	D:492:LYS:HE3	P:92:GLU:OE1	0.870
1	J:145:LEU:HD11	M:131:LEU:HD11	0.870
1	I:149:GLN:CG	N:131:LEU:HG	0.870
1	P:43:LYS:HG2	P:45:ASP:OD1	0.870
1	I:7:LYS:HG2	I:126:GLU:CG	0.869
1	I:155:LEU:CD1	N:136:HIS:CB	0.869
1	J:43:LYS:HG2	J:45:ASP:OD1	0.869
1	J:145:LEU:CD2	M:6:ILE:HG12	0.869

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:92:GLU:HG3	M:100:LYS:NZ	0.869
1	M:36:LYS:C	M:57:GLU:CD	0.869
1	N:37:ARG:CD	N:58:LYS:C	0.869
1	O:37:ARG:CD	O:58:LYS:C	0.869
1	M:127:ILE:HD13	M:131:LEU:HD12	0.868
1	O:43:LYS:HG2	O:45:ASP:OD1	0.868
1	O:155:LEU:HD12	O:255:LYS:HD3	0.868
1	P:37:ARG:CD	P:58:LYS:C	0.868
1	M:15:SER:HB3	M:46:TRP:CH2	0.867
1	N:15:SER:HB3	N:46:TRP:CH2	0.867
1	O:15:SER:HB3	O:46:TRP:CH2	0.867
1	P:33:PHE:HD1	P:56:ILE:CG1	0.867
1	F:453:HIS:HE2	F:473:TYR:HH	0.867
1	K:43:LYS:HG2	K:45:ASP:OD1	0.866
1	K:148:ILE:CD1	P:46:TRP:CE2	0.866
1	I:153:MET:C	N:136:HIS:HE1	0.866
1	I:43:LYS:HG2	I:45:ASP:OD1	0.865
1	I:154:LEU:CA	N:136:HIS:HE2	0.865
1	J:1:MET:SD	J:119:PHE:HB3	0.865
1	N:7:LYS:HB3	N:126:GLU:HA	0.865
1	O:36:LYS:C	O:57:GLU:CD	0.865
1	H:453:HIS:HE2	H:473:TYR:HH	0.865
1	D:147:LYS:HG3	H:150:TYR:CZ	0.864

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:145:LEU:HD13	N:140:LEU:HD21	0.864
1	K:98:GLU:CA	M:98:GLU:O	0.864
1	L:144:LEU:HG	O:140:LEU:CD2	0.864
1	P:15:SER:HB3	P:46:TRP:CH2	0.864
1	I:145:LEU:HD13	N:140:LEU:HD22	0.863
1	K:151:HIS:O	P:136:HIS:CG	0.863
1	L:127:ILE:CG1	L:154:LEU:HD12	0.862
1	M:37:ARG:CD	M:58:LYS:C	0.862
1	N:36:LYS:C	N:57:GLU:CD	0.862
1	L:131:LEU:N	L:132:LYS:N	0.862
1	K:2:LYS:HA	K:120:GLU:HB2	0.861
1	I:32:LEU:HD22	I:57:GLU:HG2	0.860
1	I:145:LEU:HD23	N:125:GLU:OE2	0.860
1	J:148:ILE:H	M:133:LEU:HD22	0.860
1	K:3:LEU:CB	K:120:GLU:O	0.859
1	N:7:LYS:HB3	N:125:GLU:O	0.859
1	O:7:LYS:HB3	O:126:GLU:HA	0.859
1	M:33:PHE:HD1	M:56:ILE:CG1	0.859
1	I:155:LEU:HD12	N:136:HIS:CB	0.858
1	B:569:SER:O	J:23:TYR:CE1	0.858
1	K:3:LEU:HB2	K:120:GLU:O	0.858
1	L:149:GLN:CD	O:131:LEU:CD2	0.858
1	N:127:ILE:HD13	N:131:LEU:HD12	0.858

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:7:LYS:HB3	O:125:GLU:O	0.858
1	J:3:LEU:HB2	J:120:GLU:O	0.857
1	J:55:VAL:C	J:55:VAL:HA	0.857
1	M:37:ARG:HA	M:58:LYS:CA	0.857
1	C:569:SER:CB	I:23:TYR:HE2	0.856
1	J:3:LEU:CB	J:120:GLU:O	0.856
1	L:3:LEU:CB	L:120:GLU:O	0.856
1	L:43:LYS:HG2	L:45:ASP:OD1	0.856
1	K:98:GLU:N	M:98:GLU:O	0.856
1	O:127:ILE:HD13	O:131:LEU:HD12	0.855
1	K:151:HIS:O	P:136:HIS:CD2	0.855
1	I:144:LEU:CA	N:139:ASN:HB2	0.854
1	M:36:LYS:CA	M:57:GLU:HB3	0.854
1	O:150:THR:CG2	O:160:CYS:SG	0.854
1	P:15:SER:CB	P:46:TRP:CE2	0.854
1	I:255:LYS:NZ	N:145:LEU:HD11	0.853
1	O:36:LYS:HA	O:57:GLU:CG	0.853
1	O:3:LEU:CD1	O:119:PHE:CZ	0.853
1	K:143:ASN:OD1	P:140:LEU:HD12	0.853
1	L:147:ARG:CZ	O:43:LYS:HZ3	0.852
1	M:7:LYS:HB3	M:125:GLU:O	0.852
1	I:98:GLU:HB2	O:102:LEU:HD23	0.852
1	P:7:LYS:HB3	P:125:GLU:O	0.852

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	D:614:HIS:NE2	K:23:TYR:OH	0.852
1	L:97:TYR:O	N:98:GLU:O	0.852
1	C:147:LYS:HG3	G:150:TYR:CZ	0.851
1	I:3:LEU:CB	I:120:GLU:O	0.851
1	O:15:SER:CB	O:46:TRP:CE2	0.851
1	L:148:ILE:CG2	O:133:LEU:HD13	0.851
1	L:32:LEU:HD22	L:57:GLU:HG2	0.850
1	L:155:LEU:HD12	O:136:HIS:CB	0.850
1	K:55:VAL:C	K:55:VAL:HA	0.849
1	K:42:TYR:HD1	K:133:LEU:HD21	0.849
1	N:15:SER:CB	N:46:TRP:CE2	0.848
1	K:151:HIS:HB3	P:134:GLN:OE1	0.847
1	J:98:GLU:CD	P:102:LEU:HD22	0.847
1	K:92:GLU:HB3	M:100:LYS:HZ3	0.846
1	L:6:ILE:HD13	L:153:MET:CB	0.846
1	L:263:ASN:HA	L:266:LYS:HE3	0.846
1	O:156:GLU:N	O:161:TYR:CZ	0.846
1	P:14:VAL:HB	P:121:MET:HE1	0.845
1	L:127:ILE:HD11	L:154:LEU:HD11	0.844
1	M:15:SER:CB	M:46:TRP:CE2	0.844
1	P:36:LYS:C	P:57:GLU:CD	0.844
1	P:40:GLU:HG3	P:59:GLN:HE22	0.844
1	N:153:MET:CG	N:156:GLU:OE2	0.843

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:14:VAL:HB	O:121:MET:HE1	0.843
1	J:2:LYS:CA	J:120:GLU:N	0.842
1	N:14:VAL:HB	N:121:MET:HE1	0.842
1	O:153:MET:CG	O:156:GLU:OE2	0.842
1	M:40:GLU:HG3	M:59:GLN:HE22	0.842
1	J:143:ASN:ND2	M:140:LEU:HD12	0.841
1	P:36:LYS:HA	P:57:GLU:CG	0.841
1	E:453:HIS:HE2	E:473:TYR:HH	0.841
1	P:36:LYS:CA	P:57:GLU:HB3	0.840
1	L:3:LEU:HB2	L:120:GLU:O	0.839
1	L:152:PRO:HB3	O:136:HIS:HA	0.839
1	N:36:LYS:CB	N:57:GLU:HG2	0.839
1	M:14:VAL:HB	M:121:MET:HE1	0.838
1	N:3:LEU:CD1	N:119:PHE:CZ	0.838
1	N:153:MET:O	N:161:TYR:CZ	0.838
1	O:36:LYS:CB	O:57:GLU:HG2	0.838
1	O:150:THR:HG23	O:160:CYS:SG	0.838
1	B:570:ALA:CA	J:23:TYR:CZ	0.837
1	I:90:ILE:HG23	I:96:TYR:HB2	0.837
1	L:148:ILE:CG2	O:133:LEU:HD11	0.837
1	M:26:SER:HB3	M:45:ASP:CB	0.837
1	M:36:LYS:CB	M:57:GLU:HG2	0.837
1	N:26:SER:HB3	N:45:ASP:CB	0.837

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:130:GLU:O	I:132:LYS:CE	0.837
1	L:90:ILE:HG23	L:96:TYR:HB2	0.836
1	N:11:CYS:SG	N:48:LYS:HG3	0.836
1	N:155:LEU:CD1	N:255:LYS:HD3	0.836
1	O:11:CYS:SG	O:48:LYS:HG3	0.836
1	P:4:ILE:HD11	P:17:ASN:O	0.836
1	J:125:GLU:CD	J:154:LEU:CG	0.835
1	O:4:ILE:HD11	O:17:ASN:O	0.835
1	P:36:LYS:CB	P:57:GLU:HG2	0.835
1	P:69:TYR:OH	P:103:TYR:CB	0.835
1	O:149:GLN:HE22	P:215:MET:C	0.835
1	P:153:MET:O	P:161:TYR:HE2	0.835
1	N:155:LEU:CG	N:255:LYS:HD2	0.834
1	P:11:CYS:SG	P:48:LYS:HG3	0.834
1	I:3:LEU:HB2	I:120:GLU:O	0.833
1	J:1:MET:O	J:119:PHE:CA	0.833
1	J:142:TYR:CB	M:139:ASN:N	0.833
1	K:1:MET:O	K:119:PHE:CA	0.833
1	M:4:ILE:HD11	M:17:ASN:O	0.833
1	O:33:PHE:CD2	O:34:ASP:OD2	0.833
1	O:159:PRO:HG3	O:253:SER:HB3	0.833
1	P:26:SER:HB3	P:45:ASP:CB	0.833
1	P:154:LEU:HD13	P:160:CYS:CA	0.833

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:159:PRO:HA	N:161:TYR:HD2	0.833
1	M:69:TYR:OH	M:103:TYR:CB	0.832
1	N:33:PHE:CD2	N:34:ASP:OD2	0.832
1	K:12:PHE:HD1	K:52:GLU:HA	0.831
1	L:1:MET:O	L:119:PHE:CA	0.831
1	L:149:GLN:OE1	O:131:LEU:CD2	0.831
1	P:154:LEU:CD2	P:160:CYS:HB3	0.831
1	J:37:ARG:HA	J:57:GLU:HB3	0.830
1	J:12:PHE:HD1	J:52:GLU:HA	0.830
1	K:42:TYR:HB3	K:133:LEU:HD22	0.830
1	N:4:ILE:HD11	N:17:ASN:O	0.830
1	O:26:SER:HB3	O:45:ASP:CB	0.830
1	L:143:ASN:C	O:140:LEU:HD23	0.830
1	P:33:PHE:CD2	P:34:ASP:OD2	0.830
1	P:3:LEU:H	P:120:GLU:CA	0.830
1	L:97:TYR:CE2	N:98:GLU:CA	0.829
1	M:11:CYS:SG	M:48:LYS:HG3	0.829
1	M:3:LEU:H	M:120:GLU:CA	0.829
1	I:142:TYR:H	N:139:ASN:N	0.828
1	J:54:SER:O	J:118:GLU:OE2	0.828
1	I:37:ARG:HA	I:57:GLU:HB3	0.827
1	D:569:SER:CA	K:23:TYR:CE2	0.827
1	K:149:GLN:HB2	P:132:LYS:N	0.827

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:69:TYR:OH	O:103:TYR:CB	0.827
1	O:3:LEU:H	O:120:GLU:CA	0.827
1	C:569:SER:CB	I:23:TYR:HD2	0.826
1	L:145:LEU:HG	O:125:GLU:OE2	0.826
1	M:33:PHE:CD2	M:34:ASP:OD2	0.826
1	K:1:MET:HG2	K:119:PHE:CA	0.825
1	N:3:LEU:H	N:120:GLU:CA	0.825
1	K:54:SER:O	K:118:GLU:OE2	0.825
1	J:1:MET:HG2	J:119:PHE:CA	0.824
1	L:12:PHE:HD1	L:52:GLU:HA	0.824
1	N:69:TYR:OH	N:103:TYR:CB	0.824
1	I:1:MET:O	I:119:PHE:CA	0.823
1	I:149:GLN:HB2	N:131:LEU:O	0.823
1	L:15:SER:HB2	L:46:TRP:CE2	0.823
1	J:142:TYR:H	M:138:PHE:C	0.823
1	B:570:ALA:HA	J:23:TYR:CE1	0.822
1	K:37:ARG:HA	K:57:GLU:HB3	0.822
1	M:153:MET:CG	M:156:GLU:OE2	0.822
1	P:153:MET:CG	P:156:GLU:OE2	0.822
1	L:37:ARG:HA	L:57:GLU:HB3	0.821
1	L:145:LEU:CG	O:125:GLU:OE2	0.821
1	N:4:ILE:O	N:14:VAL:CG2	0.821
1	N:34:ASP:OD1	N:55:VAL:O	0.821

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:15:SER:HB2	I:46:TRP:CE2	0.820
1	I:110:ILE:HG22	I:111:PRO:CD	0.820
1	J:15:SER:HB2	J:46:TRP:CE2	0.820
1	J:148:ILE:HD13	M:46:TRP:CE2	0.820
1	L:1:MET:HG2	L:119:PHE:CA	0.820
1	M:150:THR:CG2	M:160:CYS:CB	0.820
1	O:4:ILE:O	O:14:VAL:CG2	0.820
1	J:98:GLU:N	P:99:VAL:HA	0.820
1	I:1:MET:HG2	I:119:PHE:CA	0.819
1	I:12:PHE:HD1	I:52:GLU:HA	0.819
1	I:131:LEU:CB	I:132:LYS:O	0.819
1	K:15:SER:HB2	K:46:TRP:CE2	0.819
1	K:90:ILE:HG23	K:96:TYR:HB2	0.819
1	N:40:GLU:HG3	N:59:GLN:NE2	0.819
1	L:54:SER:O	L:118:GLU:OE2	0.819
1	O:34:ASP:OD1	O:55:VAL:O	0.819
1	J:149:GLN:HE21	M:131:LEU:CB	0.818
1	I:155:LEU:CD1	N:136:HIS:HB3	0.817
1	I:154:LEU:CA	N:136:HIS:NE2	0.816
1	J:90:ILE:HG23	J:96:TYR:HB2	0.816
1	K:2:LYS:CA	K:120:GLU:N	0.816
1	O:37:ARG:HA	O:57:GLU:CA	0.816
1	O:153:MET:O	O:161:TYR:CZ	0.816

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:142:TYR:O	M:139:ASN:ND2	0.816
1	I:54:SER:O	I:118:GLU:OE2	0.816
1	A:618:ALA:HB2	O:23:TYR:OH	0.815
1	L:32:LEU:CD2	L:57:GLU:CB	0.815
1	J:98:GLU:HB3	P:102:LEU:HB2	0.815
1	E:92:ASP:O	F:354:ARG:CD	0.815
1	I:32:LEU:CD2	I:57:GLU:CB	0.814
1	M:4:ILE:O	M:14:VAL:CG2	0.814
1	N:155:LEU:HD12	N:255:LYS:HA	0.814
1	N:37:ARG:HA	N:57:GLU:CA	0.813
1	N:154:LEU:O	N:159:PRO:HA	0.813
1	O:159:PRO:CA	O:254:GLY:O	0.813
1	P:151:HIS:CG	P:152:PRO:HD3	0.813
1	K:4:ILE:O	K:14:VAL:CG2	0.812
1	K:131:LEU:HD22	K:153:MET:CE	0.812
1	O:151:HIS:CG	O:152:PRO:HD3	0.812
1	L:4:ILE:O	L:14:VAL:CG2	0.811
1	M:69:TYR:HD2	M:85:ILE:HG12	0.811
1	M:151:HIS:CG	M:152:PRO:HD3	0.811
1	N:151:HIS:CG	N:152:PRO:HD3	0.811
1	O:69:TYR:HD2	O:85:ILE:HG12	0.811
1	O:155:LEU:HD12	O:255:LYS:HA	0.811
1	P:4:ILE:O	P:14:VAL:CG2	0.811

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	P:37:ARG:HA	P:57:GLU:CA	0.811
1	P:3:LEU:N	P:120:GLU:O	0.811
1	N:69:TYR:HD2	N:85:ILE:HG12	0.810
1	O:34:ASP:CG	O:55:VAL:O	0.810
1	P:69:TYR:HD2	P:85:ILE:HG12	0.810
1	I:1:MET:HE3	I:119:PHE:H	0.810
1	I:4:ILE:O	I:14:VAL:CG2	0.809
1	I:31:LEU:CA	I:56:ILE:HD12	0.809
1	J:4:ILE:O	J:14:VAL:CG2	0.809
1	L:31:LEU:CA	L:56:ILE:HD12	0.809
1	N:34:ASP:CG	N:55:VAL:O	0.809
1	P:159:PRO:CD	P:161:TYR:CB	0.809
1	I:15:SER:HB3	I:46:TRP:CE2	0.808
1	I:149:GLN:HB3	N:131:LEU:HB3	0.808
1	P:40:GLU:CD	P:59:GLN:HE22	0.808
1	L:145:LEU:HD21	O:6:ILE:CG2	0.807
1	M:37:ARG:HA	M:57:GLU:CA	0.807
1	B:569:SER:C	J:23:TYR:CZ	0.805
1	I:31:LEU:CA	I:56:ILE:CD1	0.805
1	I:145:LEU:CD2	N:125:GLU:OE2	0.805
1	L:32:LEU:HD22	L:57:GLU:HG3	0.805
1	L:1:MET:HE3	L:119:PHE:H	0.805
1	K:127:ILE:HD11	K:154:LEU:HD11	0.804

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:42:TYR:HB2	K:133:LEU:HD22	0.804
1	L:15:SER:HB3	L:46:TRP:CE2	0.804
1	M:4:ILE:HG21	M:18:ILE:HG22	0.804
1	N:2:LYS:HB3	N:120:GLU:CB	0.804
1	O:40:GLU:HG3	O:59:GLN:NE2	0.804
1	I:97:TYR:CE1	O:100:LYS:N	0.803
1	J:2:LYS:HB3	J:120:GLU:CB	0.803
1	K:98:GLU:CG	M:99:VAL:CA	0.803
1	P:34:ASP:CG	P:55:VAL:O	0.803
1	J:31:LEU:CA	J:56:ILE:HD12	0.802
1	K:2:LYS:HB3	K:120:GLU:CB	0.802
1	K:31:LEU:CA	K:56:ILE:HD12	0.802
1	M:34:ASP:OD1	M:55:VAL:O	0.802
1	P:34:ASP:OD1	P:55:VAL:O	0.802
1	J:80:LEU:HD12	J:95:GLU:HG2	0.801
1	O:198:LYS:HB2	O:235:ILE:HD11	0.801
1	M:40:GLU:CD	M:59:GLN:HE22	0.801
1	I:64:LYS:HA	I:110:ILE:HG13	0.800
1	M:37:ARG:C	M:57:GLU:HG3	0.800
1	M:155:LEU:HD12	M:255:LYS:HA	0.800
1	L:97:TYR:HE2	N:98:GLU:HA	0.800
1	O:2:LYS:HB3	O:120:GLU:CB	0.800
1	I:149:GLN:CB	N:132:LYS:N	0.800

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:3:LEU:N	O:120:GLU:O	0.800
1	C:570:ALA:CA	I:23:TYR:CZ	0.799
1	L:33:PHE:HD2	L:49:LEU:HD21	0.799
1	L:64:LYS:HA	L:110:ILE:HG13	0.799
1	L:145:LEU:HD21	O:6:ILE:HG21	0.799
1	M:40:GLU:HG3	M:59:GLN:NE2	0.799
1	O:153:MET:HB2	O:156:GLU:OE2	0.799
1	N:153:MET:HB2	N:156:GLU:OE2	0.798
1	I:7:LYS:HB3	I:126:GLU:HG2	0.797
1	I:33:PHE:HD2	I:49:LEU:HD21	0.797
1	M:185:ARG:HH22	N:177:ALA:HA	0.797
1	P:3:LEU:HD22	P:119:PHE:HD2	0.797
1	P:37:ARG:C	P:57:GLU:HG3	0.796
1	M:3:LEU:N	M:120:GLU:O	0.796
1	N:3:LEU:N	N:120:GLU:O	0.796
1	L:130:GLU:O	L:132:LYS:CE	0.796
1	J:33:PHE:HD2	J:49:LEU:HD21	0.795
1	K:64:LYS:HA	K:110:ILE:HG13	0.795
1	K:80:LEU:HD12	K:95:GLU:HG2	0.795
1	K:149:GLN:HG2	P:131:LEU:CB	0.795
1	I:255:LYS:HZ1	N:145:LEU:HD11	0.795
1	I:131:LEU:HD22	I:153:MET:CE	0.794
1	J:125:GLU:CG	J:154:LEU:HG	0.794

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:2:LYS:HB3	L:120:GLU:CB	0.794
1	M:34:ASP:CG	M:55:VAL:O	0.794
1	N:69:TYR:CD2	N:85:ILE:HG12	0.794
1	O:32:LEU:C	O:116:LYS:NZ	0.794
1	P:4:ILE:HG21	P:18:ILE:HG22	0.794
1	K:149:GLN:HB3	P:131:LEU:CB	0.793
1	O:69:TYR:CD2	O:85:ILE:HG12	0.793
1	P:69:TYR:CD2	P:85:ILE:HG12	0.793
1	P:154:LEU:O	P:159:PRO:HA	0.793
1	I:131:LEU:HD23	I:153:MET:CE	0.792
1	J:64:LYS:HA	J:110:ILE:HG13	0.792
1	K:15:SER:HB3	K:46:TRP:CE2	0.792
1	M:2:LYS:HB3	M:120:GLU:CB	0.792
1	K:131:LEU:O	K:133:LEU:N	0.792
1	M:159:PRO:O	M:260:LEU:CD2	0.792
1	I:98:GLU:CD	O:102:LEU:N	0.791
1	L:7:LYS:HB3	L:126:GLU:HG2	0.791
1	N:37:ARG:C	N:57:GLU:HG3	0.791
1	K:98:GLU:OE2	M:102:LEU:HD22	0.791
1	I:155:LEU:HG	N:136:HIS:HD2	0.790
1	K:33:PHE:HD2	K:49:LEU:HD21	0.790
1	M:33:PHE:CB	M:56:ILE:CG1	0.790
1	M:149:GLN:HG2	N:215:MET:HE1	0.790

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:37:ARG:C	O:57:GLU:HG3	0.790
1	J:98:GLU:CD	P:102:LEU:CD2	0.790
1	M:156:GLU:N	M:161:TYR:OH	0.790
1	G:453:HIS:HE2	G:473:TYR:HH	0.790
1	I:2:LYS:HB3	I:120:GLU:CB	0.789
1	M:69:TYR:CD2	M:85:ILE:HG12	0.789
1	L:142:TYR:O	O:140:LEU:C	0.789
1	P:33:PHE:CB	P:56:ILE:CG1	0.789
1	J:15:SER:HB3	J:46:TRP:CE2	0.788
1	K:98:GLU:HA	M:98:GLU:O	0.788
1	K:150:THR:CB	P:132:LYS:O	0.788
1	M:36:LYS:HA	M:57:GLU:CG	0.788
1	O:37:ARG:CB	O:58:LYS:N	0.788
1	J:147:ARG:CZ	M:43:LYS:NZ	0.787
1	N:32:LEU:C	N:116:LYS:NZ	0.787
1	O:4:ILE:HG21	O:18:ILE:HG22	0.787
1	L:148:ILE:CD1	O:46:TRP:CZ2	0.786
1	J:149:GLN:NE2	M:131:LEU:HB3	0.786
1	I:149:GLN:OE1	N:132:LYS:CA	0.786
1	P:2:LYS:HB3	P:120:GLU:CB	0.786
1	A:66:ASN:HB3	A:393:VAL:HG21	0.785
1	J:6:ILE:HG21	J:154:LEU:HD11	0.785
1	J:32:LEU:HD22	J:57:GLU:HG3	0.785

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:37:ARG:CB	M:58:LYS:N	0.784
1	O:159:PRO:HD2	O:253:SER:HA	0.784
1	P:40:GLU:HG3	P:59:GLN:NE2	0.784
1	K:32:LEU:HD22	K:57:GLU:HG3	0.783
1	L:80:LEU:HD12	L:95:GLU:HG2	0.783
1	P:37:ARG:CB	P:58:LYS:N	0.783
1	J:29:ASP:OD2	J:59:GLN:HG2	0.782
1	J:110:ILE:HG22	J:111:PRO:CD	0.782
1	J:145:LEU:HD23	M:6:ILE:CD1	0.782
1	D:570:ALA:N	K:23:TYR:CE2	0.782
1	I:143:ASN:ND2	N:140:LEU:HD12	0.782
1	J:97:TYR:HE1	P:100:LYS:CG	0.782
1	C:618:ALA:HB1	N:23:TYR:OH	0.781
1	D:570:ALA:N	K:23:TYR:CZ	0.780
1	K:98:GLU:CG	M:102:LEU:HD23	0.780
1	N:33:PHE:CB	N:56:ILE:CG1	0.780
1	P:32:LEU:C	P:116:LYS:NZ	0.780
1	J:149:GLN:NE2	M:131:LEU:CB	0.780
1	I:80:LEU:HD12	I:95:GLU:HG2	0.779
1	K:145:LEU:HD22	P:125:GLU:OE2	0.779
1	L:98:GLU:CG	N:102:LEU:H	0.779
1	N:4:ILE:HG21	N:18:ILE:HG22	0.779
1	K:92:GLU:CA	M:100:LYS:HZ1	0.779

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:97:TYR:OH	N:100:LYS:CE	0.779
1	I:29:ASP:OD2	I:59:GLN:HG2	0.778
1	K:83:LYS:HB3	K:83:LYS:HZ1	0.778
1	L:29:ASP:OD2	L:59:GLN:HG2	0.778
1	M:32:LEU:C	M:116:LYS:NZ	0.778
1	N:153:MET:C	N:161:TYR:CZ	0.778
1	P:154:LEU:CG	P:160:CYS:CB	0.778
1	K:7:LYS:HB3	K:126:GLU:HG2	0.777
1	N:1:MET:HE2	N:119:PHE:N	0.777
1	K:29:ASP:OD2	K:59:GLN:HG2	0.776
1	N:33:PHE:CG	N:56:ILE:CG1	0.776
1	I:153:MET:C	N:136:HIS:CE1	0.775
1	M:153:MET:HB2	M:156:GLU:OE2	0.775
1	O:1:MET:HE2	O:119:PHE:N	0.775
1	B:570:ALA:HA	J:23:TYR:OH	0.774
1	J:32:LEU:CD2	J:57:GLU:HB2	0.774
1	M:1:MET:HE2	M:119:PHE:N	0.774
1	K:92:GLU:HG3	M:100:LYS:HZ1	0.774
1	O:29:ASP:CG	O:58:LYS:NZ	0.774
1	P:29:ASP:CG	P:58:LYS:NZ	0.774
1	J:7:LYS:HB3	J:126:GLU:HG2	0.773
1	J:152:PRO:CA	M:136:HIS:ND1	0.773
1	L:70:GLU:HB2	L:106:LYS:HB2	0.773

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:154:LEU:O	M:159:PRO:HA	0.773
1	O:33:PHE:CB	O:56:ILE:CG1	0.773
1	D:569:SER:CB	K:23:TYR:HE2	0.772
1	I:70:GLU:HB2	I:106:LYS:HB2	0.772
1	M:30:GLU:HB3	M:61:PRO:HD3	0.772
1	M:32:LEU:CA	M:57:GLU:HA	0.772
1	N:33:PHE:HB2	N:56:ILE:HG12	0.772
1	N:69:TYR:HH	N:103:TYR:CB	0.772
1	O:33:PHE:CG	O:56:ILE:CG1	0.772
1	O:153:MET:C	O:161:TYR:CE1	0.772
1	P:1:MET:HE2	P:119:PHE:N	0.772
1	P:33:PHE:CG	P:56:ILE:CG1	0.772
1	P:153:MET:HB2	P:156:GLU:OE2	0.772
1	G:91:ASN:N	H:357:LYS:HZ3	0.772
1	K:142:TYR:H	P:139:ASN:N	0.772
1	L:152:PRO:HB3	O:136:HIS:CA	0.771
1	M:37:ARG:HA	M:58:LYS:H	0.771
1	M:33:PHE:CG	M:56:ILE:CG1	0.771
1	O:33:PHE:HB2	O:56:ILE:HG12	0.771
1	I:97:TYR:O	O:98:GLU:HB2	0.771
1	O:148:ILE:O	O:148:ILE:HD12	0.771
1	O:159:PRO:C	O:160:CYS:C	0.770
1	P:15:SER:CB	P:46:TRP:CZ2	0.770

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:154:LEU:H	N:136:HIS:HE1	0.770
1	M:29:ASP:CG	M:58:LYS:NZ	0.770
1	I:98:GLU:HG3	O:99:VAL:CA	0.769
1	K:32:LEU:CD2	K:57:GLU:HB2	0.769
1	K:110:ILE:HG22	K:111:PRO:CD	0.769
1	K:149:GLN:HG2	P:131:LEU:CA	0.769
1	M:33:PHE:CZ	M:53:PRO:CA	0.769
1	M:3:LEU:HD22	M:119:PHE:HD2	0.769
1	I:98:GLU:CG	O:102:LEU:H	0.768
1	I:155:LEU:HB2	N:136:HIS:CG	0.768
1	D:569:SER:O	K:23:TYR:CE2	0.768
1	P:33:PHE:CZ	P:53:PRO:CA	0.768
1	K:149:GLN:CB	P:131:LEU:CB	0.767
1	L:2:LYS:HA	L:120:GLU:CB	0.767
1	M:36:LYS:CA	M:57:GLU:HB2	0.767
1	I:149:GLN:OE1	N:132:LYS:C	0.767
1	P:30:GLU:HB3	P:61:PRO:HD3	0.767
1	N:29:ASP:CG	N:58:LYS:NZ	0.767
1	I:2:LYS:HA	I:120:GLU:CB	0.766
1	I:32:LEU:CD2	I:57:GLU:HB2	0.766
1	J:3:LEU:O	J:121:MET:HA	0.766
1	D:569:SER:O	K:23:TYR:CZ	0.766
1	M:33:PHE:CZ	M:53:PRO:HA	0.766

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:618:ALA:HB1	O:23:TYR:OH	0.765
1	M:68:ARG:HG2	M:68:ARG:NH1	0.765
1	J:151:HIS:O	M:136:HIS:CG	0.765
1	J:152:PRO:C	M:136:HIS:CE1	0.764
1	K:2:LYS:HA	K:120:GLU:CB	0.764
1	K:3:LEU:O	K:121:MET:HA	0.764
1	N:158:LYS:HZ1	N:163:SER:C	0.764
1	I:98:GLU:CD	O:102:LEU:H	0.763
1	L:32:LEU:CD2	L:57:GLU:HB2	0.763
1	M:33:PHE:HB2	M:56:ILE:HG12	0.763
1	J:255:LYS:HZ3	M:145:LEU:CD1	0.763
1	J:255:LYS:NZ	M:145:LEU:HD11	0.763
1	N:148:ILE:O	N:148:ILE:HD12	0.763
1	L:31:LEU:O	L:57:GLU:HB2	0.762
1	P:33:PHE:CZ	P:53:PRO:HA	0.762
1	P:159:PRO:C	P:260:LEU:HD22	0.762
1	J:31:LEU:O	J:57:GLU:HB2	0.761
1	N:11:CYS:SG	N:48:LYS:HE3	0.761
1	O:30:GLU:HB3	O:61:PRO:HD3	0.761
1	N:40:GLU:HG3	N:59:GLN:HE22	0.761
1	I:3:LEU:O	I:121:MET:HA	0.760
1	D:614:HIS:NE2	K:23:TYR:CE1	0.760
1	O:155:LEU:HG	O:255:LYS:HD2	0.760

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:31:LEU:O	I:57:GLU:HB2	0.759
1	J:2:LYS:HA	J:120:GLU:CB	0.759
1	K:31:LEU:O	K:57:GLU:HB2	0.759
1	K:70:GLU:HB2	K:106:LYS:HB2	0.759
1	K:148:ILE:CD1	P:46:TRP:NE1	0.759
1	M:148:ILE:O	M:148:ILE:HD12	0.759
1	N:5:GLY:CA	N:14:VAL:CA	0.759
1	N:36:LYS:CA	N:57:GLU:HB2	0.759
1	I:154:LEU:CA	N:136:HIS:CE1	0.759
1	O:33:PHE:CZ	O:53:PRO:CA	0.759
1	O:33:PHE:CZ	O:53:PRO:HA	0.759
1	P:148:ILE:O	P:148:ILE:HD12	0.759
1	I:142:TYR:HB2	N:138:PHE:O	0.758
1	I:144:LEU:HB3	N:139:ASN:HB2	0.758
1	I:149:GLN:HB3	N:131:LEU:CB	0.758
1	K:98:GLU:HG3	M:99:VAL:CA	0.758
1	M:26:SER:CB	M:45:ASP:CA	0.758
1	N:31:LEU:HD23	N:116:LYS:HD3	0.758
1	N:33:PHE:CZ	N:53:PRO:HA	0.758
1	I:143:ASN:ND2	N:140:LEU:CD1	0.758
1	I:97:TYR:CE1	O:100:LYS:HE2	0.757
1	J:98:GLU:C	P:99:VAL:CG1	0.757
1	P:11:CYS:SG	P:48:LYS:HE3	0.757

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:142:TYR:N	N:139:ASN:H	0.757
1	O:150:THR:O	O:161:TYR:N	0.757
1	I:124:ILE:CD1	I:151:HIS:NE2	0.756
1	M:15:SER:CB	M:46:TRP:CZ2	0.756
1	M:11:CYS:SG	M:48:LYS:HE3	0.756
1	M:69:TYR:HH	M:103:TYR:CB	0.756
1	I:144:LEU:N	N:139:ASN:HB2	0.756
1	N:151:HIS:CB	N:152:PRO:CD	0.756
1	O:31:LEU:HD23	O:116:LYS:HD3	0.756
1	O:11:CYS:SG	O:48:LYS:HE3	0.756
1	P:32:LEU:CA	P:57:GLU:HA	0.756
1	L:29:ASP:OD2	L:59:GLN:CG	0.755
1	N:154:LEU:C	N:159:PRO:HA	0.755
1	B:569:SER:HB2	J:23:TYR:CE2	0.754
1	N:4:ILE:O	N:14:VAL:HG23	0.754
1	N:30:GLU:HB3	N:61:PRO:HD3	0.754
1	O:5:GLY:CA	O:14:VAL:CA	0.754
1	B:147:LYS:HG3	F:150:TYR:CZ	0.753
1	J:32:LEU:CD2	J:57:GLU:CB	0.753
1	N:33:PHE:CZ	N:53:PRO:CA	0.753
1	I:97:TYR:O	O:98:GLU:HB3	0.753
1	N:153:MET:O	N:161:TYR:CG	0.752
1	P:31:LEU:HD23	P:116:LYS:HD3	0.752

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:29:ASP:OD2	I:59:GLN:CG	0.751
1	J:7:LYS:HB3	J:126:GLU:HA	0.751
1	J:70:GLU:HB2	J:106:LYS:HB2	0.751
1	L:3:LEU:O	L:121:MET:HA	0.751
1	L:143:ASN:HB3	O:140:LEU:CD2	0.751
1	J:151:HIS:O	M:136:HIS:CD2	0.751
1	J:255:LYS:NZ	M:145:LEU:CD1	0.751
1	O:68:ARG:HG2	O:68:ARG:NH1	0.751
1	C:133:TYR:HH	G:152:PHE:HD2	0.751
1	M:150:THR:CG2	M:160:CYS:HG	0.751
1	K:124:ILE:HD12	K:151:HIS:NE2	0.750
1	K:149:GLN:CD	P:132:LYS:N	0.750
1	M:37:ARG:CA	M:58:LYS:HA	0.750
1	O:69:TYR:HH	O:103:TYR:CB	0.750
1	P:37:ARG:CA	P:58:LYS:HA	0.750
1	P:151:HIS:CB	P:152:PRO:CD	0.750
1	K:63:LYS:HE2	K:111:PRO:C	0.749
1	K:150:THR:HB	P:132:LYS:O	0.749
1	L:4:ILE:O	L:14:VAL:HG23	0.749
1	J:149:GLN:OE1	M:133:LEU:HD12	0.749
1	N:4:ILE:HG23	N:18:ILE:CG2	0.749
1	N:31:LEU:HD22	N:56:ILE:HG22	0.749
1	I:131:LEU:N	I:132:LYS:N	0.749

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:154:LEU:C	M:159:PRO:HA	0.748
1	O:151:HIS:CB	O:152:PRO:CD	0.748
1	A:147:LYS:HG3	E:150:TYR:CZ	0.747
1	J:98:GLU:HG3	P:99:VAL:O	0.747
1	K:7:LYS:HB3	K:126:GLU:HA	0.747
1	O:4:ILE:HG23	O:18:ILE:CG2	0.747
1	O:31:LEU:HD22	O:56:ILE:HG22	0.747
1	P:68:ARG:HG2	P:68:ARG:NH1	0.747
1	C:569:SER:HB3	I:23:TYR:HD2	0.746
1	D:570:ALA:CA	K:23:TYR:OH	0.746
1	I:4:ILE:O	I:14:VAL:HG23	0.746
1	I:131:LEU:HD21	I:153:MET:CE	0.746
1	O:4:ILE:O	O:14:VAL:HG23	0.746
1	O:159:PRO:CB	O:254:GLY:O	0.746
1	J:97:TYR:OH	P:100:LYS:CA	0.746
1	K:4:ILE:O	K:14:VAL:HG23	0.745
1	N:37:ARG:CB	N:58:LYS:N	0.745
1	P:12:PHE:CE1	P:121:MET:CE	0.745
1	L:154:LEU:N	O:136:HIS:NE2	0.745
1	I:7:LYS:HB3	I:126:GLU:HA	0.744
1	J:4:ILE:O	J:14:VAL:HG23	0.744
1	K:29:ASP:OD2	K:59:GLN:CG	0.744
1	O:40:GLU:HG3	O:59:GLN:HE22	0.744

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:145:LEU:CD1	P:140:LEU:CD2	0.743
1	L:7:LYS:HB3	L:126:GLU:HA	0.743
1	L:65:ILE:HD12	L:110:ILE:HD12	0.743
1	M:2:LYS:CA	M:120:GLU:HB2	0.743
1	M:31:LEU:HD23	M:116:LYS:HD3	0.743
1	M:151:HIS:CB	M:152:PRO:CD	0.743
1	N:37:ARG:HA	N:58:LYS:H	0.743
1	N:3:LEU:HD22	N:119:PHE:HD2	0.743
1	O:3:LEU:HD22	O:119:PHE:HD2	0.743
1	I:65:ILE:HD12	I:110:ILE:HD12	0.742
1	J:37:ARG:CA	J:57:GLU:CB	0.742
1	P:37:ARG:HA	P:58:LYS:H	0.742
1	O:159:PRO:HB3	O:254:GLY:N	0.742
1	J:63:LYS:HE2	J:111:PRO:C	0.741
1	K:5:GLY:CA	K:14:VAL:CA	0.741
1	L:144:LEU:HG	O:140:LEU:HD21	0.741
1	O:36:LYS:CA	O:57:GLU:HB3	0.741
1	P:80:LEU:N	P:80:LEU:HD23	0.741
1	D:614:HIS:NE2	K:23:TYR:CE2	0.740
1	K:65:ILE:HD12	K:110:ILE:HD12	0.740
1	M:37:ARG:HD3	M:58:LYS:O	0.740
1	P:2:LYS:CA	P:120:GLU:HB2	0.740
1	M:3:LEU:H	M:120:GLU:C	0.740

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	P:3:LEU:H	P:120:GLU:C	0.740
1	M:80:LEU:N	M:80:LEU:HD23	0.739
1	M:159:PRO:HA	M:161:TYR:CE2	0.739
1	I:142:TYR:HB2	N:139:ASN:CA	0.738
1	J:29:ASP:OD2	J:59:GLN:CG	0.738
1	L:148:ILE:HD12	O:46:TRP:CE2	0.738
1	N:68:ARG:HG2	N:68:ARG:NH1	0.738
1	L:97:TYR:HE2	N:98:GLU:CA	0.738
1	O:1:MET:HG2	O:119:PHE:HB3	0.737
1	O:80:LEU:N	O:80:LEU:HD23	0.737
1	P:154:LEU:HD22	P:160:CYS:HB3	0.737
1	O:40:GLU:CD	O:59:GLN:HE22	0.737
1	I:1:MET:HG2	I:119:PHE:HB2	0.736
1	J:65:ILE:HD12	J:110:ILE:HD12	0.736
1	N:80:LEU:N	N:80:LEU:HD23	0.736
1	P:154:LEU:C	P:159:PRO:HA	0.736
1	B:215:LYS:NZ	B:215:LYS:O	0.736
1	C:569:SER:HB2	I:23:TYR:HE2	0.735
1	O:3:LEU:H	O:120:GLU:C	0.735
1	P:4:ILE:HG23	P:18:ILE:CG2	0.735
1	P:37:ARG:HD3	P:58:LYS:O	0.735
1	N:3:LEU:H	N:120:GLU:C	0.735
1	K:140:LEU:HD21	P:138:PHE:CE2	0.734

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:2:LYS:CA	O:120:GLU:HB2	0.734
1	P:150:THR:OG1	P:158:LYS:O	0.734
1	I:54:SER:C	I:54:SER:HA	0.733
1	I:155:LEU:CD1	N:136:HIS:C	0.733
1	J:5:GLY:CA	J:14:VAL:CA	0.733
1	K:37:ARG:CA	K:57:GLU:CB	0.733
1	L:1:MET:HG2	L:119:PHE:HB2	0.733
1	M:31:LEU:HD22	M:56:ILE:HG22	0.733
1	P:154:LEU:CD1	P:160:CYS:C	0.732
1	P:153:MET:O	P:161:TYR:CD2	0.732
1	I:3:LEU:N	I:120:GLU:CA	0.731
1	J:98:GLU:CG	P:99:VAL:O	0.731
1	J:145:LEU:CD1	M:131:LEU:HD11	0.731
1	K:124:ILE:HD12	K:151:HIS:CG	0.731
1	K:148:ILE:HD13	P:46:TRP:CD1	0.731
1	L:110:ILE:HG22	L:111:PRO:CD	0.731
1	L:3:LEU:N	L:120:GLU:CA	0.731
1	M:26:SER:OG	M:45:ASP:HA	0.731
1	N:2:LYS:CA	N:120:GLU:HB2	0.731
1	O:36:LYS:CA	O:57:GLU:HB2	0.731
1	P:31:LEU:HD22	P:56:ILE:HG22	0.731
1	I:147:ARG:HH22	N:43:LYS:CG	0.730
1	O:153:MET:CB	O:156:GLU:OE2	0.730

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	P:153:MET:CB	P:156:GLU:OE2	0.730
1	I:32:LEU:HD22	I:57:GLU:HG3	0.729
1	J:1:MET:HG2	J:119:PHE:HB2	0.729
1	K:2:LYS:HA	K:120:GLU:CA	0.729
1	L:2:LYS:HA	L:120:GLU:CA	0.729
1	M:153:MET:CB	M:156:GLU:OE2	0.729
1	N:36:LYS:CA	N:57:GLU:HB3	0.729
1	O:12:PHE:CE1	O:121:MET:CE	0.729
1	O:159:PRO:HB3	O:254:GLY:O	0.729
1	P:4:ILE:O	P:14:VAL:HG23	0.729
1	P:33:PHE:HB2	P:56:ILE:HG12	0.729
1	B:133:TYR:HH	F:152:PHE:HD2	0.729
1	K:98:GLU:HG2	M:99:VAL:HA	0.728
1	N:153:MET:CB	N:156:GLU:OE2	0.728
1	O:155:LEU:CD1	O:255:LYS:HD2	0.728
1	J:151:HIS:O	M:136:HIS:ND1	0.728
1	L:142:TYR:H	O:139:ASN:HD22	0.728
1	I:142:TYR:CA	N:139:ASN:N	0.727
1	L:2:LYS:CA	L:120:GLU:N	0.727
1	M:33:PHE:CE1	M:53:PRO:HA	0.727
1	N:26:SER:CB	N:45:ASP:CA	0.727
1	I:2:LYS:HA	I:120:GLU:CA	0.725
1	J:2:LYS:HA	J:120:GLU:CA	0.725

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:32:LEU:CD2	K:57:GLU:CB	0.725
1	M:29:ASP:HB2	M:47:PHE:CZ	0.725
1	N:12:PHE:CE1	N:121:MET:CE	0.725
1	N:26:SER:OG	N:45:ASP:HA	0.725
1	O:153:MET:HB2	O:156:GLU:OE1	0.725
1	N:40:GLU:CD	N:59:GLN:HE22	0.725
1	L:148:ILE:HG22	O:133:LEU:HD12	0.724
1	O:153:MET:SD	O:161:TYR:HE1	0.724
1	D:448:GLU:N	D:448:GLU:OE1	0.724
1	P:26:SER:OG	P:45:ASP:HA	0.723
1	P:37:ARG:N	P:57:GLU:OE2	0.723
1	I:7:LYS:HB3	I:126:GLU:CG	0.722
1	P:29:ASP:HB2	P:47:PHE:CZ	0.722
1	A:133:TYR:OH	E:152:PHE:HD2	0.722
1	G:92:ASP:OD1	H:357:LYS:HB3	0.721
1	I:125:GLU:HB3	I:154:LEU:HD11	0.721
1	J:29:ASP:HB2	J:47:PHE:CZ	0.721
1	J:83:LYS:HB3	J:83:LYS:NZ	0.721
1	K:105:LEU:N	K:105:LEU:HD23	0.721
1	M:80:LEU:H	M:80:LEU:HD23	0.721
1	M:154:LEU:HD13	M:160:CYS:HB3	0.721
1	N:153:MET:HB2	N:156:GLU:OE1	0.721
1	N:154:LEU:CA	N:159:PRO:HA	0.721

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	P:80:LEU:H	P:80:LEU:HD23	0.721
1	I:5:GLY:CA	I:14:VAL:CA	0.720
1	J:105:LEU:N	J:105:LEU:HD23	0.720
1	N:37:ARG:CA	N:58:LYS:HA	0.720
1	N:15:SER:CB	N:46:TRP:CZ2	0.720
1	K:147:ARG:NH2	P:43:LYS:HZ2	0.720
1	K:164:GLN:NE2	K:249:VAL:O	0.720
1	I:149:GLN:HG2	N:131:LEU:CB	0.719
1	K:1:MET:HG2	K:119:PHE:HB2	0.719
1	K:97:TYR:CE2	M:97:TYR:CD1	0.719
1	L:7:LYS:HB3	L:126:GLU:CG	0.719
1	L:149:GLN:HB3	O:131:LEU:HB3	0.719
1	N:37:ARG:HD3	N:58:LYS:O	0.719
1	L:149:GLN:CA	O:131:LEU:HD23	0.719
1	O:149:GLN:O	O:160:CYS:CA	0.719
1	B:133:TYR:OH	F:152:PHE:HD2	0.719
1	J:229:THR:HG23	J:230:LYS:HG3	0.718
1	K:29:ASP:HB2	K:47:PHE:CZ	0.718
1	L:29:ASP:HB2	L:47:PHE:CZ	0.718
1	L:151:HIS:CG	O:135:SER:H	0.718
1	M:154:LEU:CA	M:159:PRO:HA	0.718
1	O:37:ARG:HD3	O:58:LYS:O	0.718
1	I:142:TYR:N	N:139:ASN:N	0.718

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:83:LYS:HB3	K:83:LYS:NZ	0.717
1	L:54:SER:C	L:54:SER:HA	0.717
1	N:1:MET:HG2	N:119:PHE:CA	0.717
1	O:26:SER:CB	O:45:ASP:CA	0.717
1	I:29:ASP:HB2	I:47:PHE:CZ	0.716
1	J:97:TYR:CE1	P:100:LYS:CG	0.716
1	O:26:SER:OG	O:45:ASP:HA	0.716
1	I:98:GLU:CB	O:102:LEU:HD23	0.716
1	P:153:MET:HB2	P:156:GLU:OE1	0.716
1	I:145:LEU:CD1	N:140:LEU:HD21	0.715
1	L:83:LYS:HB3	L:83:LYS:NZ	0.715
1	M:1:MET:HE2	M:118:GLU:CA	0.715
1	O:1:MET:HG2	O:119:PHE:CA	0.715
1	O:149:GLN:O	O:160:CYS:HA	0.715
1	L:142:TYR:H	O:139:ASN:ND2	0.715
1	M:5:GLY:CA	M:14:VAL:CA	0.714
1	N:1:MET:SD	N:117:ILE:HB	0.714
1	O:1:MET:SD	O:117:ILE:HB	0.714
1	P:1:MET:HG2	P:119:PHE:HB3	0.714
1	P:154:LEU:CA	P:159:PRO:HA	0.714
1	N:37:ARG:N	N:57:GLU:OE2	0.714
1	O:37:ARG:N	O:57:GLU:OE2	0.714
1	I:1:MET:HG2	I:119:PHE:HA	0.713

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:97:TYR:CD1	M:98:GLU:C	0.713
1	L:1:MET:HG2	L:119:PHE:HA	0.713
1	N:182:LYS:HB2	N:204:LYS:HD3	0.713
1	A:133:TYR:HH	E:152:PHE:HD2	0.713
1	M:37:ARG:N	M:57:GLU:OE2	0.713
1	L:131:LEU:CG	L:156:GLU:OE1	0.712
1	M:4:ILE:HG12	M:18:ILE:CG2	0.712
1	M:4:ILE:HG23	M:18:ILE:CG2	0.712
1	N:1:MET:HE2	N:118:GLU:CA	0.712
1	P:1:MET:HG2	P:119:PHE:CA	0.712
1	P:33:PHE:CE1	P:53:PRO:HA	0.712
1	J:98:GLU:CA	P:99:VAL:HG13	0.712
1	I:2:LYS:CA	I:120:GLU:CB	0.711
1	I:14:VAL:HB	I:121:MET:CE	0.711
1	I:80:LEU:N	I:80:LEU:HD23	0.711
1	L:2:LYS:CA	L:120:GLU:CB	0.711
1	L:63:LYS:CD	L:63:LYS:H	0.711
1	N:1:MET:HG2	N:119:PHE:HB3	0.711
1	N:4:ILE:CD1	N:18:ILE:N	0.711
1	O:1:MET:HE2	O:118:GLU:CA	0.711
1	P:1:MET:HE2	P:118:GLU:CA	0.711
1	P:4:ILE:HG12	P:18:ILE:CG2	0.711
1	K:29:ASP:HB2	K:47:PHE:HZ	0.710

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:37:ARG:CA	L:57:GLU:CB	0.710
1	M:4:ILE:O	M:14:VAL:HG23	0.710
1	I:255:LYS:NZ	N:145:LEU:CD1	0.710
1	O:109:GLU:N	O:109:GLU:OE2	0.710
1	I:63:LYS:CD	I:63:LYS:H	0.709
1	I:83:LYS:HB3	I:83:LYS:NZ	0.709
1	J:29:ASP:HB2	J:47:PHE:HZ	0.709
1	K:7:LYS:HB3	K:126:GLU:CG	0.709
1	L:127:ILE:HG12	L:154:LEU:HD12	0.709
1	O:29:ASP:HB2	O:47:PHE:HZ	0.709
1	O:153:MET:O	O:161:TYR:CG	0.709
1	L:5:GLY:CA	L:14:VAL:CA	0.708
1	L:98:GLU:HG3	N:101:GLY:CA	0.708
1	M:1:MET:HG2	M:119:PHE:HB3	0.708
1	O:29:ASP:HB2	O:47:PHE:CZ	0.708
1	O:80:LEU:H	O:80:LEU:HD23	0.708
1	O:154:LEU:HD13	O:160:CYS:O	0.708
1	I:37:ARG:CA	I:57:GLU:CB	0.707
1	J:63:LYS:CD	J:63:LYS:H	0.707
1	K:63:LYS:CD	K:63:LYS:H	0.707
1	L:149:GLN:HG3	O:131:LEU:HG	0.707
1	M:153:MET:HB2	M:156:GLU:OE1	0.707
1	N:69:TYR:OH	N:103:TYR:HB2	0.707

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:69:TYR:OH	O:103:TYR:HB2	0.707
1	K:147:ARG:CZ	P:43:LYS:HZ3	0.706
1	N:3:LEU:HD13	N:28:LEU:CD2	0.706
1	N:80:LEU:H	N:80:LEU:HD23	0.706
1	O:3:LEU:HD13	O:28:LEU:CD2	0.706
1	M:109:GLU:N	M:109:GLU:OE2	0.706
1	N:109:GLU:N	N:109:GLU:OE2	0.706
1	B:434:GLU:HG3	B:563:LEU:HD22	0.705
1	J:7:LYS:HB3	J:126:GLU:CG	0.705
1	B:569:SER:CA	J:23:TYR:CE2	0.705
1	K:140:LEU:HD21	P:138:PHE:CE1	0.705
1	L:80:LEU:N	L:80:LEU:HD23	0.705
1	M:1:MET:HG2	M:119:PHE:CA	0.705
1	M:2:LYS:CA	M:120:GLU:N	0.705
1	M:156:GLU:N	M:161:TYR:CZ	0.705
1	N:29:ASP:HB2	N:47:PHE:HZ	0.705
1	O:33:PHE:CE1	O:53:PRO:HA	0.705
1	M:232:GLU:N	M:232:GLU:OE1	0.705
1	I:144:LEU:CB	N:139:ASN:HB2	0.704
1	L:68:ARG:HG2	L:68:ARG:NH1	0.704
1	L:83:LYS:HB3	L:83:LYS:HZ2	0.704
1	N:29:ASP:HB2	N:47:PHE:CZ	0.704
1	O:15:SER:CB	O:46:TRP:CZ2	0.704

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:142:TYR:O	O:140:LEU:O	0.704
1	J:98:GLU:CA	P:99:VAL:CG1	0.703
1	K:140:LEU:CD2	P:138:PHE:CE1	0.703
1	M:7:LYS:CB	M:125:GLU:O	0.703
1	O:4:ILE:CD1	O:18:ILE:N	0.703
1	J:97:TYR:OH	P:97:TYR:HA	0.703
1	P:1:MET:SD	P:117:ILE:HB	0.703
1	F:100:GLU:OE2	F:354:ARG:NH2	0.703
1	I:105:LEU:N	I:105:LEU:HD23	0.702
1	K:149:GLN:CG	P:131:LEU:C	0.702
1	L:14:VAL:HB	L:121:MET:CE	0.702
1	L:105:LEU:N	L:105:LEU:HD23	0.702
1	N:33:PHE:CE1	N:53:PRO:HA	0.702
1	P:4:ILE:CD1	P:18:ILE:N	0.702
1	P:109:GLU:N	P:109:GLU:OE2	0.702
1	D:614:HIS:CD2	K:23:TYR:CE1	0.701
1	M:1:MET:SD	M:117:ILE:HB	0.701
1	N:155:LEU:N	N:161:TYR:OH	0.701
1	N:158:LYS:HZ1	N:163:SER:CA	0.701
1	B:569:SER:HB3	J:23:TYR:HD2	0.700
1	I:97:TYR:CZ	O:99:VAL:N	0.700
1	J:149:GLN:OE1	M:133:LEU:HD11	0.700
1	N:4:ILE:HG12	N:18:ILE:CG2	0.700

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:147:ARG:NH2	N:43:LYS:HG3	0.700
1	P:1:MET:O	P:119:PHE:C	0.700
1	P:131:LEU:HD23	P:133:LEU:HG	0.700
1	O:154:LEU:O	O:159:PRO:HA	0.700
1	I:63:LYS:HE2	I:111:PRO:C	0.699
1	I:68:ARG:HG2	I:68:ARG:NH1	0.699
1	K:124:ILE:CD1	K:151:HIS:NE2	0.699
1	M:1:MET:O	M:119:PHE:C	0.699
1	O:203:TYR:CD1	O:205:PRO:HD2	0.699
1	I:161:TYR:HE1	N:141:ASN:H	0.699
1	K:1:MET:HG2	K:119:PHE:HA	0.698
1	L:148:ILE:HD11	O:46:TRP:HE1	0.698
1	L:153:MET:C	O:136:HIS:NE2	0.698
1	M:37:ARG:CB	M:58:LYS:HA	0.698
1	O:150:THR:CA	O:160:CYS:HA	0.698
1	P:40:GLU:HG2	P:59:GLN:NE2	0.698
1	P:69:TYR:HH	P:103:TYR:CB	0.698
1	O:37:ARG:N	O:57:GLU:HG2	0.698
1	I:2:LYS:CA	I:120:GLU:N	0.697
1	M:4:ILE:CD1	M:18:ILE:N	0.697
1	M:69:TYR:OH	M:103:TYR:HB2	0.697
1	N:37:ARG:HD3	N:59:GLN:N	0.697
1	P:5:GLY:CA	P:14:VAL:CA	0.697

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:151:HIS:O	M:136:HIS:NE2	0.697
1	P:37:ARG:N	P:57:GLU:HG2	0.697
1	L:115:GLU:N	L:115:GLU:OE2	0.697
1	O:32:LEU:O	O:116:LYS:NZ	0.697
1	J:1:MET:HG2	J:119:PHE:HA	0.696
1	J:149:GLN:CB	M:131:LEU:C	0.696
1	K:200:LEU:HA	K:279:LEU:HD13	0.696
1	M:37:ARG:HD3	M:59:GLN:N	0.696
1	M:40:GLU:HG2	M:59:GLN:NE2	0.696
1	N:4:ILE:HD13	N:18:ILE:HA	0.696
1	N:40:GLU:HG2	N:59:GLN:NE2	0.696
1	P:2:LYS:CA	P:120:GLU:N	0.696
1	P:7:LYS:CB	P:125:GLU:O	0.696
1	P:69:TYR:HE2	P:85:ILE:HD11	0.696
1	P:154:LEU:HB2	P:160:CYS:CB	0.696
1	J:148:ILE:HD11	M:46:TRP:NE1	0.696
1	J:2:LYS:CA	J:120:GLU:CB	0.695
1	J:3:LEU:N	J:120:GLU:CA	0.695
1	K:98:GLU:O	M:99:VAL:HG22	0.695
1	N:131:LEU:HD23	N:133:LEU:HG	0.695
1	O:4:ILE:HG12	O:18:ILE:CG2	0.695
1	O:4:ILE:HD13	O:18:ILE:HA	0.695
1	O:37:ARG:HA	O:58:LYS:H	0.695

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:434:GLU:HG3	A:563:LEU:HD22	0.694
1	K:147:ARG:CZ	P:43:LYS:HZ2	0.694
1	M:1:MET:SD	M:119:PHE:HB3	0.694
1	O:7:LYS:CB	O:125:GLU:O	0.694
1	O:33:PHE:CG	O:56:ILE:HG12	0.694
1	O:131:LEU:HD23	O:133:LEU:HG	0.694
1	P:12:PHE:CD1	P:52:GLU:HA	0.694
1	K:147:ARG:NH2	P:43:LYS:HG3	0.694
1	P:1:MET:SD	P:119:PHE:HB3	0.694
1	D:562:ASP:OD2	D:589:GLN:NE2	0.694
1	D:434:GLU:HG3	D:563:LEU:HD22	0.693
1	I:149:GLN:CB	N:131:LEU:O	0.693
1	L:148:ILE:HD13	O:46:TRP:CD2	0.693
1	M:12:PHE:CE1	M:121:MET:CE	0.693
1	M:32:LEU:CD2	M:57:GLU:CD	0.693
1	N:7:LYS:CB	N:125:GLU:O	0.693
1	N:33:PHE:CG	N:56:ILE:HG12	0.693
1	P:69:TYR:OH	P:103:TYR:HB2	0.693
1	G:100:GLU:OE2	G:354:ARG:NH2	0.693
1	L:1:MET:HE3	L:119:PHE:CG	0.692
1	L:95:GLU:CD	L:95:GLU:H	0.692
1	M:69:TYR:HE2	M:85:ILE:HD11	0.692
1	N:1:MET:O	N:119:PHE:C	0.692

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:1:MET:SD	N:119:PHE:HB3	0.692
1	O:37:ARG:HD3	O:59:GLN:N	0.692
1	P:29:ASP:HB2	P:47:PHE:HZ	0.692
1	P:32:LEU:CD2	P:57:GLU:CD	0.692
1	A:562:ASP:OD2	A:589:GLN:NE2	0.692
1	J:115:GLU:N	J:115:GLU:OE2	0.692
1	K:68:ARG:HG2	K:68:ARG:NH1	0.691
1	M:12:PHE:CD1	M:52:GLU:HA	0.691
1	O:1:MET:SD	O:119:PHE:HB3	0.691
1	P:3:LEU:HD13	P:28:LEU:CD2	0.691
1	P:37:ARG:HD3	P:59:GLN:N	0.691
1	N:32:LEU:O	N:116:LYS:NZ	0.691
1	C:66:ASN:HB3	C:393:VAL:HG21	0.690
1	I:1:MET:HE3	I:119:PHE:CG	0.690
1	I:95:GLU:CD	I:95:GLU:H	0.690
1	I:1:MET:CG	I:119:PHE:CB	0.690
1	D:569:SER:HB2	K:23:TYR:CE2	0.690
1	L:1:MET:CG	L:119:PHE:CB	0.690
1	M:151:HIS:HB3	M:152:PRO:HD2	0.690
1	O:1:MET:O	O:119:PHE:C	0.690
1	H:100:GLU:OE2	H:354:ARG:NH2	0.690
1	K:2:LYS:CA	K:120:GLU:CB	0.689
1	K:14:VAL:HB	K:121:MET:CE	0.689

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:1:MET:HG2	M:119:PHE:HB2	0.689
1	I:255:LYS:HZ3	N:145:LEU:CD1	0.689
1	P:36:LYS:CA	P:57:GLU:HB2	0.689
1	E:100:GLU:OE2	E:354:ARG:NH2	0.689
1	J:70:GLU:HA	J:70:GLU:OE1	0.688
1	K:70:GLU:HA	K:70:GLU:OE1	0.688
1	K:95:GLU:CD	K:95:GLU:H	0.688
1	O:12:PHE:CD1	O:52:GLU:HA	0.688
1	P:69:TYR:OH	P:103:TYR:HB3	0.688
1	J:143:ASN:C	M:139:ASN:HB2	0.687
1	M:1:MET:HE1	M:31:LEU:HD11	0.687
1	N:12:PHE:CD1	N:52:GLU:HA	0.687
1	O:40:GLU:HG3	O:59:GLN:CD	0.687
1	O:69:TYR:OH	O:103:TYR:HB3	0.687
1	P:40:GLU:HG3	P:59:GLN:CD	0.687
1	M:69:TYR:OH	M:103:TYR:HB3	0.686
1	N:151:HIS:HB3	N:152:PRO:CD	0.686
1	O:1:MET:HE1	O:31:LEU:HD11	0.686
1	P:1:MET:HG2	P:119:PHE:HB2	0.686
1	P:1:MET:HE1	P:31:LEU:HD11	0.686
1	D:614:HIS:CD2	K:22:ARG:HD3	0.685
1	J:145:LEU:HD11	M:127:ILE:CD1	0.685
1	K:3:LEU:N	K:120:GLU:CA	0.685

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:63:LYS:HE2	L:111:PRO:C	0.685
1	M:3:LEU:HD13	M:28:LEU:CD2	0.685
1	N:1:MET:HE1	N:31:LEU:HD11	0.685
1	N:40:GLU:HG3	N:59:GLN:CD	0.685
1	O:159:PRO:HA	O:254:GLY:O	0.685
1	K:144:LEU:H	P:140:LEU:HD23	0.685
1	I:57:GLU:CA	I:57:GLU:HB3	0.684
1	J:68:ARG:HG2	J:68:ARG:NH1	0.684
1	J:95:GLU:CD	J:95:GLU:H	0.684
1	L:211:ASP:HB3	L:214:ALA:HB2	0.684
1	N:69:TYR:HE2	N:85:ILE:HD11	0.684
1	O:151:HIS:HB3	O:152:PRO:CD	0.684
1	P:151:HIS:HB3	P:152:PRO:HD2	0.684
1	P:155:LEU:CD1	P:255:LYS:HA	0.684
1	O:154:LEU:CD1	O:160:CYS:O	0.684
1	I:131:LEU:CD2	I:153:MET:HE3	0.683
1	J:14:VAL:HB	J:121:MET:CE	0.683
1	M:1:MET:CE	M:119:PHE:N	0.683
1	M:33:PHE:CG	M:56:ILE:HG12	0.683
1	N:1:MET:CE	N:119:PHE:N	0.683
1	N:69:TYR:OH	N:103:TYR:HB3	0.683
1	O:150:THR:C	O:160:CYS:HA	0.683
1	M:37:ARG:C	M:58:LYS:CA	0.682

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:40:GLU:HG2	O:59:GLN:NE2	0.682
1	L:142:TYR:HE2	O:136:HIS:HB3	0.682
1	E:91:ASN:H	F:357:LYS:HZ2	0.682
1	J:95:GLU:O	P:102:LEU:HD23	0.682
1	I:55:VAL:C	I:55:VAL:CB	0.681
1	K:80:LEU:N	K:80:LEU:HD23	0.681
1	M:40:GLU:HG3	M:59:GLN:CD	0.681
1	N:12:PHE:HE1	N:121:MET:HE3	0.681
1	N:155:LEU:HG	N:255:LYS:HE3	0.681
1	O:1:MET:CE	O:119:PHE:N	0.681
1	I:70:GLU:HA	I:70:GLU:OE1	0.680
1	L:55:VAL:C	L:55:VAL:CB	0.680
1	L:70:GLU:HA	L:70:GLU:OE1	0.680
1	N:2:LYS:HA	N:120:GLU:CA	0.680
1	N:37:ARG:C	N:58:LYS:CA	0.680
1	O:6:ILE:HG13	O:124:ILE:HD11	0.680
1	P:6:ILE:HG13	P:124:ILE:HD11	0.680
1	P:151:HIS:HB3	P:152:PRO:CD	0.680
1	K:150:THR:HA	P:132:LYS:O	0.680
1	C:434:GLU:HG3	C:563:LEU:HD22	0.679
1	M:151:HIS:HB3	M:152:PRO:CD	0.679
1	N:151:HIS:HB3	N:152:PRO:HD2	0.679
1	O:2:LYS:HA	O:120:GLU:CA	0.679

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:32:LEU:CD2	O:57:GLU:CD	0.679
1	O:69:TYR:HE2	O:85:ILE:HD11	0.679
1	I:154:LEU:N	N:136:HIS:NE2	0.679
1	M:149:GLN:NE2	N:215:MET:SD	0.679
1	B:49:GLN:NE2	B:156:ASP:OD2	0.679
1	N:6:ILE:HG13	N:124:ILE:HD11	0.678
1	P:1:MET:CE	P:119:PHE:N	0.678
1	D:55:LYS:NZ	D:136:ASP:OD2	0.678
1	M:7:LYS:N	M:125:GLU:O	0.678
1	P:7:LYS:N	P:125:GLU:O	0.678
1	C:223:TYR:OH	C:327:LYS:O	0.678
1	J:146:ASP:O	M:133:LEU:CD2	0.678
1	B:569:SER:O	J:23:TYR:CZ	0.677
1	J:98:GLU:HA	P:99:VAL:CB	0.677
1	L:148:ILE:HG22	O:133:LEU:HD11	0.677
1	M:29:ASP:HB2	M:47:PHE:HZ	0.677
1	P:37:ARG:CB	P:58:LYS:HA	0.677
1	J:145:LEU:HD21	M:6:ILE:CG2	0.676
1	K:1:MET:CG	K:119:PHE:CB	0.676
1	L:98:GLU:HA	N:98:GLU:O	0.676
1	M:127:ILE:CD1	M:131:LEU:HD11	0.676
1	O:7:LYS:N	O:125:GLU:O	0.676
1	K:92:GLU:CG	M:100:LYS:HZ3	0.675

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:131:LEU:CD2	K:153:MET:HE2	0.675
1	N:7:LYS:N	N:125:GLU:O	0.675
1	N:37:ARG:N	N:57:GLU:HG2	0.675
1	J:97:TYR:OH	P:100:LYS:N	0.675
1	I:29:ASP:HB2	I:47:PHE:HZ	0.674
1	N:32:LEU:CD2	N:57:GLU:CD	0.674
1	J:92:GLU:OE1	P:97:TYR:CE2	0.674
1	B:569:SER:HB2	J:23:TYR:HE2	0.673
1	C:569:SER:HB2	I:23:TYR:CE2	0.673
1	J:1:MET:HE3	J:119:PHE:CG	0.673
1	M:6:ILE:HG13	M:124:ILE:HD11	0.673
1	O:151:HIS:HB3	O:152:PRO:HD2	0.673
1	M:185:ARG:HE	M:199:VAL:HG11	0.672
1	N:58:LYS:HD2	N:59:GLN:HG2	0.672
1	O:58:LYS:HD2	O:59:GLN:HG2	0.672
1	J:144:LEU:CD2	M:140:LEU:HD23	0.671
1	L:29:ASP:HB2	L:47:PHE:HZ	0.671
1	L:149:GLN:CD	O:131:LEU:CG	0.671
1	P:3:LEU:N	P:120:GLU:H	0.671
1	I:131:LEU:HD21	I:153:MET:HE3	0.670
1	J:72:LYS:HD2	J:102:LEU:HB3	0.670
1	L:6:ILE:CD1	L:153:MET:HB2	0.670
1	L:57:GLU:CA	L:57:GLU:HB3	0.670

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:12:PHE:HE1	O:121:MET:HE3	0.670
1	O:155:LEU:HD11	O:255:LYS:CD	0.670
1	B:562:ASP:OD2	B:589:GLN:NE2	0.670
1	B:118:THR:HG23	B:166:TYR:HB3	0.669
1	J:98:GLU:HG3	P:99:VAL:C	0.669
1	K:1:MET:HE3	K:119:PHE:CG	0.669
1	K:72:LYS:HD2	K:102:LEU:HB3	0.669
1	N:8:THR:CB	N:11:CYS:O	0.669
1	P:37:ARG:CA	P:57:GLU:CD	0.669
1	I:109:GLU:CD	I:109:GLU:H	0.668
1	J:144:LEU:HD23	M:140:LEU:HD23	0.668
1	L:109:GLU:CD	L:109:GLU:H	0.668
1	M:8:THR:CB	M:11:CYS:O	0.668
1	O:37:ARG:C	O:58:LYS:CA	0.668
1	P:150:THR:OG1	P:160:CYS:C	0.668
1	J:98:GLU:OE2	P:102:LEU:CG	0.668
1	I:98:GLU:HA	O:99:VAL:N	0.667
1	K:92:GLU:HG3	M:100:LYS:CE	0.667
1	K:109:GLU:CD	K:109:GLU:H	0.667
1	L:72:LYS:HD2	L:102:LEU:HB3	0.667
1	N:147:ARG:HA	N:147:ARG:HE	0.667
1	P:154:LEU:CB	P:160:CYS:CB	0.667
1	D:66:ASN:N	D:66:ASN:OD1	0.667

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:150:THR:O	M:134:GLN:O	0.667
1	O:166:GLU:N	O:166:GLU:OE2	0.667
1	I:72:LYS:HD2	I:102:LEU:HB3	0.666
1	J:80:LEU:N	J:80:LEU:HD23	0.666
1	M:2:LYS:HA	M:120:GLU:CA	0.666
1	P:18:ILE:N	P:18:ILE:HD13	0.666
1	J:109:GLU:CD	J:109:GLU:H	0.665
1	J:1:MET:CG	J:119:PHE:CB	0.665
1	L:266:LYS:HD2	L:267:PHE:N	0.665
1	O:147:ARG:HA	O:147:ARG:HE	0.665
1	P:58:LYS:HD2	P:59:GLN:HG2	0.665
1	P:127:ILE:CD1	P:131:LEU:HD11	0.665
1	E:354:ARG:CD	F:92:ASP:O	0.665
1	D:569:SER:HB3	K:23:TYR:HD2	0.664
1	G:92:ASP:CG	H:357:LYS:HD3	0.664
1	K:54:SER:C	K:54:SER:HA	0.664
1	A:569:SER:O	L:23:TYR:CD1	0.664
1	N:30:GLU:HA	N:60:MET:HA	0.664
1	O:8:THR:CB	O:11:CYS:O	0.664
1	P:8:THR:CB	P:11:CYS:O	0.664
1	P:15:SER:HB2	P:46:TRP:CE2	0.664
1	C:152:SER:OG	G:145:LEU:HB3	0.663
1	I:6:ILE:HG13	I:124:ILE:CG1	0.663

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:37:ARG:HG2	M:58:LYS:C	0.663
1	M:150:THR:O	M:161:TYR:N	0.663
1	I:8:THR:CB	I:11:CYS:O	0.662
1	J:8:THR:CB	J:11:CYS:O	0.662
1	L:6:ILE:HG13	L:124:ILE:CG1	0.662
1	L:8:THR:CB	L:11:CYS:O	0.662
1	M:15:SER:HB2	M:46:TRP:CE2	0.662
1	O:1:MET:HG2	O:119:PHE:HB2	0.662
1	P:30:GLU:HA	P:60:MET:HA	0.662
1	I:145:LEU:HD12	N:140:LEU:CD2	0.661
1	J:15:SER:HB3	J:46:TRP:CZ3	0.661
1	J:55:VAL:C	J:55:VAL:CB	0.661
1	L:131:LEU:CA	L:132:LYS:N	0.661
1	L:149:GLN:CA	O:133:LEU:HB2	0.661
1	L:149:GLN:HB3	O:131:LEU:CG	0.661
1	M:30:GLU:HA	M:60:MET:HA	0.661
1	M:151:HIS:CG	M:152:PRO:CD	0.661
1	N:127:ILE:CD1	N:131:LEU:HD11	0.661
1	O:30:GLU:HA	O:60:MET:HA	0.661
1	D:276:GLU:OE2	I:241:LYS:NZ	0.661
1	I:131:LEU:CA	I:132:LYS:N	0.660
1	I:285:CYS:HB3	I:288:ARG:HE	0.660
1	J:46:TRP:CZ2	J:153:MET:HG3	0.660

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:15:SER:HB3	K:46:TRP:CZ3	0.660
1	M:58:LYS:HD2	M:59:GLN:HG2	0.660
1	I:147:ARG:NH2	N:43:LYS:CG	0.660
1	O:2:LYS:CA	O:120:GLU:N	0.660
1	O:159:PRO:CG	O:253:SER:HA	0.660
1	C:66:ASN:OD1	C:90:ASN:ND2	0.660
1	H:371:ILE:O	H:372:ASN:ND2	0.660
1	I:131:LEU:HD23	I:153:MET:HE1	0.659
1	B:569:SER:O	J:23:TYR:CE2	0.659
1	K:37:ARG:CG	K:57:GLU:CB	0.659
1	L:4:ILE:HG22	L:122:ASN:HB3	0.659
1	J:142:TYR:H	M:138:PHE:CA	0.659
1	N:60:MET:HG3	N:61:PRO:CD	0.659
1	O:127:ILE:CD1	O:131:LEU:HD11	0.659
1	O:159:PRO:CB	O:254:GLY:C	0.659
1	P:2:LYS:HA	P:120:GLU:CA	0.659
1	P:147:ARG:HA	P:147:ARG:HE	0.659
1	F:371:ILE:O	F:372:ASN:ND2	0.659
1	G:277:VAL:HG23	G:278:LEU:HD12	0.658
1	I:4:ILE:HG22	I:122:ASN:HB3	0.658
1	K:8:THR:CB	K:11:CYS:O	0.658
1	L:148:ILE:HD12	O:46:TRP:CZ2	0.658
1	I:149:GLN:HB3	N:131:LEU:HD23	0.658

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:155:LEU:HD11	O:255:LYS:HD2	0.658
1	P:151:HIS:CG	P:152:PRO:CD	0.658
1	E:277:VAL:HG23	E:278:LEU:HD12	0.657
1	K:6:ILE:HG13	K:124:ILE:CG1	0.657
1	M:1:MET:CE	M:118:GLU:C	0.657
1	K:149:GLN:CB	P:131:LEU:HB3	0.656
1	N:2:LYS:CA	N:120:GLU:N	0.656
1	F:277:VAL:HG23	F:278:LEU:HD12	0.655
1	H:277:VAL:HG23	H:278:LEU:HD12	0.655
1	K:4:ILE:HG22	K:122:ASN:HB3	0.655
1	K:55:VAL:C	K:55:VAL:CB	0.655
1	L:6:ILE:HD13	L:153:MET:HB2	0.655
1	J:6:ILE:HG13	J:124:ILE:CG1	0.654
1	J:86:LYS:HD3	J:86:LYS:N	0.654
1	L:15:SER:HB3	L:46:TRP:CZ3	0.654
1	L:149:GLN:CD	O:131:LEU:HG	0.654
1	I:86:LYS:HD3	I:86:LYS:N	0.653
1	I:149:GLN:CB	N:131:LEU:CA	0.653
1	J:37:ARG:CG	J:57:GLU:CB	0.653
1	M:149:GLN:O	M:160:CYS:HA	0.653
1	O:15:SER:HB2	O:46:TRP:CE2	0.653
1	O:37:ARG:CB	O:58:LYS:HA	0.653
1	O:151:HIS:CG	O:152:PRO:CD	0.653

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:4:ILE:HD13	M:18:ILE:HA	0.652
1	M:147:ARG:HA	M:147:ARG:HE	0.652
1	M:153:MET:CB	M:156:GLU:CD	0.652
1	N:18:ILE:N	N:18:ILE:HD13	0.652
1	N:151:HIS:CG	N:152:PRO:CD	0.652
1	N:155:LEU:CG	N:255:LYS:CE	0.652
1	P:4:ILE:HD13	P:18:ILE:HA	0.652
1	P:47:PHE:CE1	P:58:LYS:HD3	0.652
1	I:270:ASP:OD1	I:271:LEU:N	0.652
1	J:4:ILE:HG22	J:122:ASN:HB3	0.651
1	N:1:MET:HG2	N:119:PHE:HB2	0.651
1	O:37:ARG:CA	O:58:LYS:HA	0.651
1	C:614:HIS:HD1	C:616:LYS:H	0.651
1	I:15:SER:HB3	I:46:TRP:CZ3	0.650
1	K:98:GLU:HA	M:99:VAL:N	0.650
1	L:86:LYS:HD3	L:86:LYS:N	0.650
1	P:26:SER:CB	P:45:ASP:CA	0.650
1	I:7:LYS:CB	I:126:GLU:CG	0.649
1	K:86:LYS:HD3	K:86:LYS:N	0.649
1	K:124:ILE:CD1	K:151:HIS:CD2	0.649
1	O:33:PHE:HD1	O:56:ILE:CB	0.649
1	M:18:ILE:N	M:18:ILE:HD13	0.648
1	M:40:GLU:HG3	M:59:GLN:OE1	0.648

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:33:PHE:HD1	N:56:ILE:CB	0.648
1	N:174:HIS:CE1	N:268:LEU:HD21	0.648
1	L:149:GLN:H	O:131:LEU:HD23	0.648
1	L:142:TYR:CE2	O:138:PHE:CA	0.648
1	I:148:ILE:HD13	N:46:TRP:CD1	0.647
1	O:18:ILE:N	O:18:ILE:HD13	0.647
1	O:47:PHE:CE1	O:58:LYS:HD3	0.647
1	P:1:MET:CE	P:118:GLU:C	0.647
1	E:371:ILE:O	E:372:ASN:ND2	0.647
1	A:578:ILE:HD12	A:602:ASN:HB2	0.646
1	P:40:GLU:HG3	P:59:GLN:OE1	0.646
1	P:200:LEU:HD11	P:233:VAL:HG12	0.646
1	G:371:ILE:O	G:372:ASN:ND2	0.646
1	I:6:ILE:CD1	I:124:ILE:HD11	0.645
1	L:98:GLU:CG	N:101:GLY:CA	0.645
1	K:6:ILE:CD1	K:124:ILE:HD11	0.644
1	K:42:TYR:HB3	K:133:LEU:CG	0.644
1	L:6:ILE:CD1	L:124:ILE:HD11	0.644
1	L:124:ILE:HD12	L:151:HIS:CG	0.644
1	M:47:PHE:CE1	M:58:LYS:HD3	0.644
1	P:153:MET:CB	P:156:GLU:CD	0.644
1	J:6:ILE:CD1	J:124:ILE:HD11	0.643
1	O:1:MET:CE	O:118:GLU:C	0.643

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:2:LYS:HA	O:120:GLU:HB2	0.643
1	O:60:MET:HG3	O:61:PRO:CD	0.643
1	P:3:LEU:O	P:121:MET:HA	0.643
1	E:453:HIS:NE2	E:473:TYR:OH	0.643
1	M:37:ARG:N	M:57:GLU:HG2	0.643
1	H:288:VAL:HG21	H:294:ALA:HB2	0.642
1	I:124:ILE:HD12	I:151:HIS:CE1	0.642
1	L:125:GLU:HB3	L:154:LEU:CD2	0.642
1	N:3:LEU:O	N:121:MET:HA	0.642
1	L:149:GLN:N	O:131:LEU:HD23	0.642
1	G:453:HIS:NE2	G:473:TYR:OH	0.642
1	C:338:ILE:HG22	C:341:PRO:HG3	0.641
1	M:33:PHE:HD1	M:56:ILE:CB	0.641
1	N:2:LYS:HA	N:120:GLU:HB2	0.641
1	N:15:SER:HB2	N:46:TRP:CE2	0.641
1	N:47:PHE:CE1	N:58:LYS:HD3	0.641
1	O:40:GLU:HG3	O:59:GLN:OE1	0.641
1	O:3:LEU:O	O:121:MET:HA	0.641
1	F:288:VAL:HG21	F:294:ALA:HB2	0.640
1	I:37:ARG:CG	I:57:GLU:CB	0.640
1	I:98:GLU:HG3	O:99:VAL:C	0.640
1	J:54:SER:C	J:54:SER:HA	0.640
1	P:33:PHE:HD1	P:56:ILE:CB	0.640

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:140:LEU:CD2	P:138:PHE:CZ	0.639
1	M:12:PHE:HE1	M:121:MET:HE3	0.639
1	N:12:PHE:CZ	N:121:MET:HE3	0.639
1	N:37:ARG:CB	N:58:LYS:HA	0.639
1	N:60:MET:HE1	N:114:ASN:HA	0.639
1	O:60:MET:HE1	O:114:ASN:HA	0.639
1	L:142:TYR:N	O:139:ASN:ND2	0.639
1	F:373:GLN:HG3	F:400:THR:HG21	0.638
1	G:357:LYS:HD2	H:91:ASN:HB2	0.638
1	J:98:GLU:CA	P:99:VAL:CA	0.638
1	P:2:LYS:HA	P:120:GLU:HB2	0.638
1	P:12:PHE:HE1	P:121:MET:HE3	0.638
1	A:229:GLN:OE1	I:226:ARG:NH2	0.638
1	J:142:TYR:N	M:138:PHE:C	0.638
1	I:1:MET:CE	I:119:PHE:CB	0.637
1	I:131:LEU:CD2	I:153:MET:HE1	0.637
1	I:272:MET:HA	I:272:MET:HE2	0.637
1	L:7:LYS:CB	L:126:GLU:CG	0.637
1	L:144:LEU:CA	O:140:LEU:HD23	0.637
1	H:229:GLN:O	H:233:ASN:ND2	0.637
1	N:141:ASN:ND2	N:141:ASN:O	0.637
1	E:288:VAL:HG21	E:294:ALA:HB2	0.636
1	N:40:GLU:HG3	N:59:GLN:OE1	0.636

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:149:GLN:H	O:131:LEU:CD2	0.636
1	O:159:PRO:CB	O:253:SER:CA	0.636
1	P:159:PRO:HA	P:160:CYS:N	0.636
1	J:142:TYR:H	M:139:ASN:H	0.636
1	L:147:ARG:NH2	O:43:LYS:CG	0.636
1	B:338:ILE:HG22	B:341:PRO:HG3	0.635
1	L:1:MET:HE3	L:119:PHE:CA	0.635
1	M:3:LEU:O	M:121:MET:HA	0.635
1	L:148:ILE:HD11	O:46:TRP:CE2	0.635
1	O:156:GLU:N	O:161:TYR:CE1	0.635
1	P:37:ARG:HG2	P:58:LYS:C	0.635
1	K:115:GLU:N	K:115:GLU:OE2	0.635
1	M:166:GLU:N	M:166:GLU:OE2	0.635
1	G:288:VAL:HG21	G:294:ALA:HB2	0.634
1	H:373:GLN:HG3	H:400:THR:HG21	0.634
1	L:6:ILE:CD1	L:153:MET:CG	0.634
1	M:2:LYS:HA	M:120:GLU:HB2	0.634
1	M:12:PHE:CZ	M:121:MET:HE3	0.634
1	M:1:MET:CG	M:119:PHE:HB3	0.634
1	M:196:VAL:HG22	M:235:ILE:HD11	0.634
1	N:1:MET:CE	N:118:GLU:C	0.634
1	E:373:GLN:HG3	E:400:THR:HG21	0.633
1	G:373:GLN:HG3	G:400:THR:HG21	0.633

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	D:614:HIS:HE2	K:22:ARG:HB3	0.633
1	K:54:SER:O	K:118:GLU:CD	0.633
1	L:6:ILE:CD1	L:153:MET:CB	0.633
1	L:39:THR:HA	L:58:LYS:NZ	0.633
1	M:154:LEU:HD13	M:160:CYS:CA	0.633
1	P:60:MET:HE1	P:114:ASN:HA	0.633
1	F:229:GLN:O	F:233:ASN:ND2	0.633
1	K:1:MET:HE3	K:119:PHE:H	0.633
1	O:141:ASN:ND2	O:141:ASN:O	0.633
1	I:39:THR:HA	I:58:LYS:NZ	0.632
1	L:54:SER:O	L:118:GLU:CD	0.632
1	D:569:SER:HB2	K:23:TYR:HE2	0.631
1	I:1:MET:HE3	I:119:PHE:CA	0.631
1	B:570:ALA:N	J:23:TYR:CE2	0.631
1	J:70:GLU:HG2	J:106:LYS:HE2	0.631
1	P:12:PHE:CZ	P:121:MET:HE3	0.631
1	A:225:PHE:HD2	A:291:PHE:HE1	0.631
1	B:570:ALA:N	J:23:TYR:CZ	0.630
1	J:54:SER:O	J:118:GLU:CD	0.630
1	P:159:PRO:HD2	P:161:TYR:CB	0.630
1	I:98:GLU:HA	O:98:GLU:C	0.629
1	I:54:SER:O	I:118:GLU:CD	0.629
1	C:303:ASP:OD2	C:307:TYR:OH	0.629

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:97:TYR:O	M:98:GLU:HB2	0.629
1	K:70:GLU:HG2	K:106:LYS:HE2	0.628
1	L:37:ARG:CG	L:57:GLU:CB	0.628
1	C:133:TYR:OH	G:152:PHE:HD2	0.628
1	G:229:GLN:O	G:233:ASN:ND2	0.628
1	K:1:MET:CE	K:119:PHE:CB	0.627
1	J:255:LYS:HZ1	M:145:LEU:HD11	0.627
1	N:1:MET:CG	N:119:PHE:HB3	0.627
1	O:36:LYS:N	O:57:GLU:HB3	0.627
1	P:1:MET:CG	P:119:PHE:HB3	0.627
1	P:37:ARG:C	P:58:LYS:CA	0.627
1	H:453:HIS:NE2	H:473:TYR:OH	0.627
1	D:288:LYS:HD3	J:218:ARG:HH21	0.626
1	L:6:ILE:HD13	L:153:MET:CG	0.626
1	L:70:GLU:HG2	L:106:LYS:HE2	0.626
1	L:153:MET:HA	L:153:MET:HE3	0.626
1	I:149:GLN:HG2	N:131:LEU:CA	0.625
1	K:6:ILE:HG13	K:124:ILE:HG13	0.625
1	K:12:PHE:HE1	K:52:GLU:HG3	0.625
1	M:60:MET:HE1	M:114:ASN:HA	0.625
1	P:144:LEU:C	P:144:LEU:HD23	0.625
1	J:12:PHE:HE1	J:52:GLU:HG3	0.624
1	J:148:ILE:H	M:133:LEU:CD2	0.624

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:153:MET:CB	N:156:GLU:CD	0.624
1	E:229:GLN:O	E:233:ASN:ND2	0.624
1	I:115:GLU:N	I:115:GLU:OE2	0.624
1	K:150:THR:HG23	P:134:GLN:O	0.623
1	O:12:PHE:CZ	O:121:MET:HE3	0.623
1	I:98:GLU:OE1	O:102:LEU:N	0.623
1	I:203:TYR:OH	I:281:GLU:O	0.623
1	I:70:GLU:HG2	I:106:LYS:HE2	0.622
1	I:155:LEU:HD11	N:136:HIS:HB2	0.622
1	J:6:ILE:HG13	J:124:ILE:HG13	0.622
1	N:36:LYS:N	N:57:GLU:HB3	0.622
1	O:1:MET:CG	O:119:PHE:HB3	0.622
1	O:153:MET:CB	O:156:GLU:CD	0.622
1	C:570:ALA:HB2	I:23:TYR:OH	0.621
1	C:569:SER:C	I:23:TYR:CZ	0.621
1	J:97:TYR:CD1	P:100:LYS:HE3	0.621
1	O:155:LEU:CD2	O:255:LYS:HE3	0.621
1	P:33:PHE:CG	P:56:ILE:HG12	0.621
1	E:357:LYS:HZ2	F:91:ASN:H	0.621
1	J:1:MET:HE3	J:119:PHE:H	0.621
1	O:37:ARG:N	O:57:GLU:CG	0.621
1	I:12:PHE:HE1	I:52:GLU:HG3	0.620
1	K:39:THR:HA	K:58:LYS:NZ	0.620

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:1:MET:CE	L:119:PHE:CB	0.620
1	L:98:GLU:HG3	N:101:GLY:HA3	0.620
1	M:33:PHE:CD1	M:56:ILE:HA	0.620
1	M:141:ASN:ND2	M:141:ASN:O	0.620
1	D:338:ILE:HG22	D:341:PRO:HG3	0.619
1	I:124:ILE:CD1	I:151:HIS:CE1	0.619
1	K:98:GLU:CD	M:102:LEU:CD2	0.619
1	L:12:PHE:HE1	L:52:GLU:HG3	0.619
1	L:145:LEU:HD21	O:6:ILE:CB	0.619
1	O:144:LEU:C	O:144:LEU:HD23	0.619
1	O:150:THR:HG21	O:160:CYS:SG	0.619
1	A:338:ILE:HG22	A:341:PRO:HG3	0.618
1	J:55:VAL:HG13	J:118:GLU:HG2	0.618
1	K:55:VAL:HG13	K:118:GLU:HG2	0.618
1	M:144:LEU:C	M:144:LEU:HD23	0.618
1	O:4:ILE:O	O:14:VAL:HG22	0.618
1	L:147:ARG:O	O:133:LEU:HB3	0.618
1	J:98:GLU:HB2	P:102:LEU:HG	0.617
1	J:145:LEU:CD2	M:6:ILE:CG1	0.617
1	N:153:MET:CB	N:156:GLU:OE1	0.617
1	L:270:ASP:OD2	L:271:LEU:N	0.617
1	L:6:ILE:HG13	L:124:ILE:HG13	0.616
1	L:98:GLU:OE1	N:101:GLY:HA3	0.616

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:391:GLU:N	A:391:GLU:OE2	0.616
1	A:483:ASP:HB2	A:562:ASP:HA	0.615
1	I:145:LEU:CD1	N:140:LEU:HD22	0.615
1	M:3:LEU:HD22	M:28:LEU:HD11	0.615
1	M:153:MET:CB	M:156:GLU:OE1	0.615
1	N:32:LEU:N	N:116:LYS:HD3	0.615
1	N:203:TYR:HD2	N:205:PRO:HD2	0.615
1	O:153:MET:CB	O:156:GLU:OE1	0.615
1	M:32:LEU:H	M:116:LYS:CD	0.615
1	N:37:ARG:N	N:57:GLU:CG	0.615
1	J:1:MET:CE	J:119:PHE:CB	0.614
1	J:285:CYS:HB3	J:288:ARG:HG2	0.614
1	N:4:ILE:O	N:14:VAL:HG22	0.614
1	N:144:LEU:C	N:144:LEU:HD23	0.614
1	O:7:LYS:HG2	O:126:GLU:CG	0.614
1	L:149:GLN:HE21	O:132:LYS:H	0.614
1	I:149:GLN:CB	N:131:LEU:CB	0.613
1	J:39:THR:HA	J:58:LYS:NZ	0.613
1	K:1:MET:HE3	K:119:PHE:CA	0.613
1	P:4:ILE:O	P:14:VAL:HG22	0.613
1	K:255:LYS:NZ	P:145:LEU:HD11	0.613
1	G:91:ASN:N	H:357:LYS:HZ2	0.613
1	C:570:ALA:N	I:23:TYR:CZ	0.612

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:4:ILE:O	K:14:VAL:HG22	0.612
1	N:155:LEU:CD1	N:255:LYS:CD	0.612
1	O:159:PRO:HB2	O:254:GLY:N	0.612
1	F:363:ILE:HD11	F:383:LEU:HD13	0.611
1	I:6:ILE:HG13	I:124:ILE:HG13	0.611
1	J:206:HIS:HB3	J:228:GLN:HG3	0.611
1	M:149:GLN:HG2	N:215:MET:SD	0.611
1	J:4:ILE:CG1	J:15:SER:O	0.611
1	J:1:MET:HE3	J:119:PHE:CA	0.610
1	J:4:ILE:O	J:14:VAL:HG22	0.610
1	L:1:MET:HG2	L:119:PHE:HB3	0.610
1	L:97:TYR:CE2	N:98:GLU:C	0.610
1	P:3:LEU:HD22	P:28:LEU:HD11	0.610
1	B:538:LYS:HE3	B:561:ILE:HD11	0.609
1	D:66:ASN:HD21	D:86:ILE:HG22	0.609
1	H:363:ILE:HD11	H:383:LEU:HD13	0.609
1	I:212:LEU:HD23	I:222:LYS:HZ1	0.609
1	N:182:LYS:HD3	N:204:LYS:HG2	0.609
1	J:97:TYR:OH	P:97:TYR:CA	0.609
1	F:453:HIS:NE2	F:473:TYR:OH	0.609
1	I:97:TYR:C	O:98:GLU:C	0.608
1	K:57:GLU:CA	K:57:GLU:HB3	0.608
1	N:69:TYR:CE2	N:85:ILE:HD11	0.608

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:155:LEU:CG	N:255:LYS:HE3	0.608
1	A:216:LEU:O	A:220:ASN:ND2	0.608
1	O:4:ILE:CG1	O:15:SER:O	0.608
1	E:363:ILE:HD11	E:383:LEU:HD13	0.607
1	I:149:GLN:CB	N:131:LEU:CD2	0.607
1	L:55:VAL:HG13	L:118:GLU:HG2	0.607
1	M:4:ILE:O	M:14:VAL:HG22	0.607
1	D:117:ASP:HB3	D:120:LYS:HE2	0.606
1	I:155:LEU:CD1	N:136:HIS:HB2	0.606
1	N:155:LEU:CD1	N:255:LYS:HA	0.606
1	P:153:MET:CB	P:156:GLU:OE1	0.606
1	I:1:MET:HG2	I:119:PHE:HB3	0.605
1	I:98:GLU:CG	O:99:VAL:CA	0.605
1	L:4:ILE:O	L:14:VAL:HG22	0.605
1	N:159:PRO:CA	N:254:GLY:O	0.605
1	P:4:ILE:CD1	P:17:ASN:O	0.605
1	B:265:ILE:HD11	C:320:ILE:HG13	0.604
1	G:363:ILE:HD11	G:383:LEU:HD13	0.604
1	I:4:ILE:O	I:14:VAL:HG22	0.604
1	M:7:LYS:CB	M:126:GLU:HG2	0.604
1	M:178:ASN:HD21	N:205:PRO:HA	0.604
1	C:208:ASN:ND2	C:210:LEU:O	0.604
1	D:230:GLY:O	J:226:ARG:NH1	0.604

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:55:VAL:HG13	I:118:GLU:HG2	0.603
1	J:3:LEU:N	J:120:GLU:C	0.603
1	K:7:LYS:CB	K:126:GLU:CG	0.603
1	J:152:PRO:O	M:136:HIS:HA	0.603
1	M:149:GLN:HG3	N:215:MET:CE	0.603
1	O:69:TYR:CE2	O:85:ILE:HD11	0.603
1	J:80:LEU:CD2	J:80:LEU:H	0.603
1	I:149:GLN:CD	N:132:LYS:C	0.602
1	L:31:LEU:CA	L:56:ILE:CD1	0.602
1	L:140:LEU:HD12	O:138:PHE:CE2	0.602
1	M:27:GLN:OE1	M:117:ILE:HD13	0.602
1	N:7:LYS:CB	N:126:GLU:HG2	0.602
1	I:149:GLN:CG	N:131:LEU:C	0.602
1	O:7:LYS:CB	O:126:GLU:HG2	0.602
1	N:37:ARG:HD3	N:59:GLN:HA	0.601
1	O:37:ARG:HD3	O:59:GLN:HA	0.601
1	I:140:LEU:HD11	N:138:PHE:CE2	0.600
1	I:155:LEU:HD11	N:136:HIS:CB	0.600
1	N:33:PHE:CD1	N:56:ILE:HA	0.600
1	N:60:MET:CG	N:61:PRO:CD	0.600
1	P:69:TYR:CE2	P:85:ILE:HD11	0.600
1	B:483:ASP:HB2	B:562:ASP:HA	0.599
1	I:1:MET:CG	I:119:PHE:HB3	0.599

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:95:GLU:HA	P:102:LEU:HD22	0.599
1	J:1:MET:O	J:119:PHE:C	0.599
1	M:4:ILE:CD1	M:17:ASN:O	0.599
1	O:4:ILE:CD1	O:17:ASN:O	0.599
1	O:43:LYS:HD3	O:46:TRP:CD1	0.599
1	O:32:LEU:N	O:116:LYS:HD3	0.599
1	I:1:MET:O	I:119:PHE:C	0.598
1	J:72:LYS:HD2	J:102:LEU:HD12	0.598
1	K:72:LYS:HD2	K:102:LEU:HD12	0.598
1	K:272:MET:HE3	K:272:MET:O	0.598
1	L:97:TYR:CD2	N:98:GLU:HA	0.598
1	L:272:MET:HA	L:272:MET:HE2	0.598
1	N:153:MET:O	N:161:TYR:CE2	0.598
1	D:209:PRO:HG2	D:210:LEU:HD22	0.597
1	K:1:MET:O	K:119:PHE:C	0.597
1	L:72:LYS:HD2	L:102:LEU:HD12	0.597
1	M:37:ARG:CA	M:57:GLU:CD	0.597
1	N:43:LYS:HD3	N:46:TRP:CD1	0.597
1	P:145:LEU:O	P:145:LEU:HD22	0.597
1	E:91:ASN:H	F:357:LYS:NZ	0.597
1	K:98:GLU:OE2	M:102:LEU:HD21	0.597
1	N:159:PRO:CB	N:254:GLY:O	0.597
1	I:72:LYS:HD2	I:102:LEU:HD12	0.596

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:3:LEU:N	K:120:GLU:C	0.596
1	K:142:TYR:HB2	P:139:ASN:HA	0.596
1	N:4:ILE:CD1	N:17:ASN:O	0.596
1	N:37:ARG:CA	N:57:GLU:CD	0.596
1	P:7:LYS:CB	P:126:GLU:HG2	0.596
1	I:149:GLN:CD	N:132:LYS:N	0.596
1	O:272:MET:O	O:276:ASN:ND2	0.596
1	E:119:GLN:O	F:119:GLN:O	0.596
1	B:618:ALA:CB	M:23:TYR:OH	0.595
1	K:43:LYS:HD3	K:46:TRP:CD1	0.595
1	L:1:MET:CG	L:119:PHE:HB3	0.595
1	N:3:LEU:HD22	N:28:LEU:HD11	0.595
1	O:3:LEU:HD22	O:28:LEU:HD11	0.595
1	P:32:LEU:H	P:116:LYS:CD	0.595
1	C:276:GLU:OE2	K:241:LYS:NZ	0.595
1	I:43:LYS:HD3	I:46:TRP:CD1	0.594
1	J:43:LYS:HD3	J:46:TRP:CD1	0.594
1	P:27:GLN:OE1	P:117:ILE:HD13	0.594
1	K:147:ARG:O	P:133:LEU:HB3	0.594
1	A:465:ASN:OD1	A:506:ASN:ND2	0.594
1	A:569:SER:C	L:23:TYR:CE2	0.593
1	L:43:LYS:HD3	L:46:TRP:CD1	0.593
1	M:145:LEU:O	M:145:LEU:HD22	0.593

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:27:GLN:OE1	N:117:ILE:HD13	0.593
1	F:275:LYS:HG3	F:493:ILE:HD13	0.592
1	I:154:LEU:CB	N:136:HIS:HE2	0.592
1	J:1:MET:CG	J:119:PHE:HB3	0.592
1	J:148:ILE:CG2	M:133:LEU:HD11	0.592
1	L:180:ASN:HD21	L:183:PHE:HB2	0.592
1	P:198:LYS:HB2	P:235:ILE:HD11	0.592
1	G:357:LYS:HZ2	H:91:ASN:HB2	0.591
1	H:275:LYS:HG3	H:493:ILE:HD13	0.591
1	J:143:ASN:O	M:139:ASN:HA	0.591
1	M:155:LEU:CA	M:255:LYS:CE	0.591
1	O:7:LYS:HB3	O:126:GLU:CA	0.591
1	M:185:ARG:NH1	N:176:LYS:O	0.591
1	J:57:GLU:CA	J:57:GLU:HB3	0.590
1	J:147:ARG:CZ	M:43:LYS:HZ2	0.590
1	K:149:GLN:CG	P:131:LEU:CB	0.590
1	K:185:ARG:HH21	K:187:THR:HG22	0.590
1	L:145:LEU:CB	O:125:GLU:OE2	0.590
1	M:69:TYR:CE2	M:85:ILE:HD11	0.590
1	N:145:LEU:O	N:145:LEU:HD22	0.590
1	O:60:MET:CG	O:61:PRO:CD	0.590
1	O:145:LEU:O	O:145:LEU:HD22	0.590
1	B:570:ALA:CA	J:23:TYR:OH	0.589

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	F:271:LEU:HB3	F:278:LEU:HD13	0.589
1	I:144:LEU:HB3	N:139:ASN:CB	0.589
1	J:83:LYS:HB3	J:83:LYS:HZ2	0.589
1	K:140:LEU:HD23	P:138:PHE:CE1	0.589
1	L:7:LYS:HB3	L:126:GLU:CA	0.589
1	M:37:ARG:HD3	M:59:GLN:HA	0.589
1	J:31:LEU:N	J:56:ILE:O	0.589
1	K:98:GLU:CG	M:98:GLU:O	0.589
1	G:279:ASN:HD21	G:281:GLU:HB2	0.588
1	H:271:LEU:HB3	H:278:LEU:HD13	0.588
1	H:279:ASN:HD21	H:281:GLU:HB2	0.588
1	I:7:LYS:HB3	I:126:GLU:CA	0.588
1	K:1:MET:CG	K:119:PHE:HB3	0.588
1	K:149:GLN:CG	P:131:LEU:CA	0.588
1	L:1:MET:O	L:119:PHE:C	0.588
1	L:279:LEU:HD22	L:290:VAL:HG23	0.588
1	M:4:ILE:CG1	M:18:ILE:HG23	0.588
1	N:38:ALA:N	N:58:LYS:CB	0.588
1	O:38:ALA:N	O:58:LYS:CB	0.588
1	J:98:GLU:C	P:99:VAL:CB	0.588
1	K:31:LEU:N	K:56:ILE:O	0.588
1	E:275:LYS:HG3	E:493:ILE:HD13	0.587
1	I:98:GLU:HG2	O:102:LEU:H	0.587

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:148:ILE:HD13	O:46:TRP:CG	0.587
1	P:43:LYS:HD3	P:46:TRP:CD1	0.587
1	K:142:TYR:O	P:139:ASN:ND2	0.587
1	E:279:ASN:HD21	E:281:GLU:HB2	0.586
1	G:275:LYS:HG3	G:493:ILE:HD13	0.586
1	G:357:LYS:HZ2	H:91:ASN:CB	0.586
1	I:98:GLU:HB2	O:102:LEU:CD2	0.586
1	K:7:LYS:HB3	K:126:GLU:CA	0.586
1	O:4:ILE:CG1	O:18:ILE:CG2	0.586
1	O:27:GLN:OE1	O:117:ILE:HD13	0.586
1	J:100:LYS:NZ	P:99:VAL:H	0.586
1	B:578:ILE:HD12	B:602:ASN:HB2	0.585
1	C:117:ASP:HB3	C:120:LYS:HE2	0.585
1	F:279:ASN:HD21	F:281:GLU:HB2	0.585
1	J:7:LYS:HB3	J:126:GLU:CA	0.585
1	L:149:GLN:CB	O:131:LEU:CG	0.585
1	N:4:ILE:CG1	N:18:ILE:CG2	0.585
1	N:7:LYS:HB3	N:126:GLU:CA	0.585
1	O:232:GLU:N	O:232:GLU:OE1	0.585
1	P:37:ARG:N	P:57:GLU:CG	0.585
1	E:271:LEU:HB3	E:278:LEU:HD13	0.584
1	I:144:LEU:HD12	I:145:LEU:HD12	0.584
1	J:7:LYS:CB	J:126:GLU:CG	0.584

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:79:GLU:HA	J:79:GLU:OE2	0.584
1	M:154:LEU:HD13	M:160:CYS:CB	0.584
1	N:6:ILE:HD12	N:46:TRP:CZ2	0.584
1	O:4:ILE:CG1	O:18:ILE:HG23	0.584
1	P:7:LYS:HB3	P:126:GLU:CA	0.584
1	P:4:ILE:CG1	P:18:ILE:HG23	0.584
1	P:37:ARG:HD3	P:59:GLN:HA	0.584
1	M:37:ARG:N	M:57:GLU:CG	0.584
1	G:271:LEU:HB3	G:278:LEU:HD13	0.583
1	J:6:ILE:HD11	J:124:ILE:HD11	0.583
1	K:6:ILE:HD11	K:124:ILE:HD11	0.583
1	L:6:ILE:HD11	L:124:ILE:HD11	0.583
1	P:38:ALA:N	P:58:LYS:CB	0.583
1	P:60:MET:HG3	P:61:PRO:CD	0.583
1	I:131:LEU:HD21	I:153:MET:O	0.582
1	K:213:ASN:HD22	K:219:ARG:HG3	0.582
1	M:43:LYS:HD3	M:46:TRP:CD1	0.582
1	O:6:ILE:HD12	O:46:TRP:CZ2	0.582
1	A:50:GLN:NE2	A:131:SER:O	0.582
1	P:141:ASN:ND2	P:141:ASN:O	0.582
1	D:311:GLY:HA2	D:314:LYS:HG3	0.581
1	K:79:GLU:HA	K:79:GLU:OE2	0.581
1	K:163:SER:HB3	K:166:GLU:HB3	0.581

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:6:ILE:HD11	I:124:ILE:HD11	0.580
1	L:145:LEU:HD11	O:127:ILE:CD1	0.580
1	M:4:ILE:CG1	M:18:ILE:CG2	0.580
1	M:203:TYR:CD2	M:205:PRO:HD2	0.580
1	G:92:ASP:OD1	H:357:LYS:HD3	0.579
1	J:1:MET:HE3	J:119:PHE:N	0.579
1	J:124:ILE:HD12	J:151:HIS:CD2	0.579
1	A:569:SER:O	L:23:TYR:CG	0.579
1	O:33:PHE:CD1	O:56:ILE:HA	0.579
1	O:155:LEU:CD1	O:255:LYS:HA	0.579
1	C:50:GLN:NE2	C:134:GLU:OE2	0.579
1	M:7:LYS:HB3	M:126:GLU:CA	0.578
1	N:159:PRO:HA	N:161:TYR:CE2	0.578
1	I:146:ASP:O	I:149:GLN:NE2	0.578
1	J:136:HIS:ND1	J:136:HIS:O	0.578
1	A:320:ILE:HG13	D:265:ILE:HD11	0.577
1	D:495:VAL:HA	D:517:THR:HA	0.577
1	I:79:GLU:HA	I:79:GLU:OE2	0.576
1	J:130:GLU:C	J:132:LYS:HE3	0.576
1	K:149:GLN:HG2	P:131:LEU:HA	0.576
1	M:38:ALA:N	M:58:LYS:CB	0.576
1	P:4:ILE:CG1	P:18:ILE:CG2	0.576
1	K:97:TYR:CG	M:98:GLU:O	0.576

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:1:MET:HE3	I:3:LEU:HD11	0.575
1	N:33:PHE:CE1	N:49:LEU:HD13	0.575
1	A:388:HIS:NE2	A:396:SER:OG	0.575
1	I:98:GLU:CA	O:98:GLU:O	0.574
1	L:125:GLU:HB2	L:154:LEU:CD2	0.574
1	N:153:MET:O	N:161:TYR:CD2	0.574
1	O:33:PHE:CE1	O:49:LEU:HD13	0.574
1	H:417:TYR:O	H:420:LYS:NZ	0.574
1	L:149:GLN:HE21	O:132:LYS:N	0.574
1	I:209:ILE:HG12	I:223:LEU:HD12	0.573
1	J:152:PRO:HA	M:136:HIS:CG	0.573
1	L:1:MET:HE3	L:3:LEU:HD11	0.573
1	M:1:MET:HE3	M:3:LEU:HD11	0.573
1	F:417:TYR:O	F:420:LYS:NZ	0.573
1	I:127:ILE:N	I:127:ILE:HD12	0.572
1	J:9:SER:HB3	J:128:ASP:HA	0.572
1	J:127:ILE:N	J:127:ILE:HD12	0.572
1	J:147:ARG:CZ	M:43:LYS:HZ3	0.572
1	L:148:ILE:CD1	O:46:TRP:HE1	0.572
1	M:105:LEU:N	M:105:LEU:HD23	0.572
1	N:4:ILE:CG1	N:18:ILE:HG23	0.572
1	N:105:LEU:N	N:105:LEU:HD23	0.572
1	A:308:PRO:O	A:313:ARG:NH1	0.572

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:149:GLN:NE2	O:132:LYS:N	0.572
1	K:1:MET:HE3	K:119:PHE:N	0.571
1	K:149:GLN:CA	P:131:LEU:HD23	0.571
1	K:98:GLU:HB3	M:99:VAL:HG13	0.570
1	K:149:GLN:CG	P:132:LYS:N	0.570
1	L:9:SER:HB3	L:128:ASP:HA	0.570
1	L:127:ILE:N	L:127:ILE:HD12	0.570
1	O:105:LEU:N	O:105:LEU:HD23	0.570
1	A:587:TYR:O	A:595:ASN:ND2	0.570
1	J:92:GLU:O	P:101:GLY:HA2	0.570
1	I:9:SER:HB3	I:128:ASP:HA	0.569
1	I:149:GLN:CG	N:132:LYS:N	0.569
1	J:33:PHE:CD2	J:49:LEU:HD21	0.569
1	K:127:ILE:N	K:127:ILE:HD12	0.569
1	L:65:ILE:O	L:65:ILE:HD12	0.569
1	L:79:GLU:HA	L:79:GLU:OE2	0.569
1	L:168:TYR:HB2	L:249:VAL:HG11	0.569
1	N:11:CYS:CB	N:48:LYS:HE3	0.569
1	I:98:GLU:OE1	O:101:GLY:CA	0.569
1	O:150:THR:O	O:160:CYS:HA	0.569
1	P:33:PHE:CE1	P:49:LEU:HD13	0.569
1	J:73:GLU:N	J:73:GLU:OE1	0.569
1	K:73:GLU:N	K:73:GLU:OE1	0.569

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:65:ILE:O	I:65:ILE:HD12	0.568
1	M:60:MET:CG	M:61:PRO:CD	0.568
1	N:1:MET:HE3	N:3:LEU:HD11	0.568
1	C:216:LEU:O	C:220:ASN:ND2	0.568
1	C:587:TYR:O	C:595:ASN:ND2	0.568
1	I:4:ILE:CG1	I:15:SER:O	0.568
1	B:569:SER:CB	J:23:TYR:HE2	0.567
1	K:3:LEU:HD13	K:28:LEU:HD21	0.567
1	K:9:SER:HB3	K:128:ASP:HA	0.567
1	L:3:LEU:HD13	L:28:LEU:HD21	0.567
1	M:1:MET:HE3	M:119:PHE:CG	0.567
1	M:33:PHE:CE1	M:49:LEU:HD13	0.567
1	N:7:LYS:HG2	N:126:GLU:CG	0.567
1	N:153:MET:HE3	N:153:MET:O	0.567
1	L:145:LEU:HD22	O:6:ILE:HD13	0.567
1	O:11:CYS:CB	O:48:LYS:HE3	0.567
1	O:14:VAL:HG21	O:119:PHE:CE2	0.567
1	O:154:LEU:HD13	O:160:CYS:C	0.567
1	P:11:CYS:CB	P:48:LYS:HE3	0.567
1	P:105:LEU:N	P:105:LEU:HD23	0.567
1	B:245:THR:OG1	K:217:LYS:NZ	0.567
1	J:3:LEU:HD13	J:28:LEU:HD21	0.566
1	K:12:PHE:CE1	K:121:MET:CE	0.566

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:97:TYR:CE1	M:100:LYS:HE2	0.566
1	M:3:LEU:HB2	M:120:GLU:O	0.566
1	M:155:LEU:HA	M:255:LYS:CE	0.566
1	P:1:MET:HE3	P:119:PHE:CG	0.566
1	P:14:VAL:HG21	P:119:PHE:CE2	0.566
1	I:148:ILE:CD1	N:46:TRP:CE2	0.565
1	M:11:CYS:CB	M:48:LYS:HE3	0.565
1	M:14:VAL:HG21	M:119:PHE:CE2	0.565
1	K:97:TYR:HE1	M:100:LYS:HE2	0.565
1	N:14:VAL:HG21	N:119:PHE:CE2	0.565
1	P:1:MET:HE3	P:3:LEU:HD11	0.565
1	P:6:ILE:HD12	P:46:TRP:CZ2	0.565
1	L:4:ILE:CG1	L:15:SER:O	0.565
1	J:33:PHE:CE1	J:56:ILE:HA	0.564
1	K:1:MET:HE3	K:3:LEU:HD11	0.564
1	O:1:MET:HE3	O:3:LEU:HD11	0.564
1	O:153:MET:HE3	O:153:MET:O	0.564
1	O:149:GLN:O	O:160:CYS:CB	0.564
1	P:3:LEU:HB2	P:120:GLU:O	0.564
1	M:18:ILE:CD1	M:18:ILE:H	0.564
1	J:222:LYS:NZ	J:222:LYS:O	0.564
1	P:4:ILE:CG1	P:15:SER:O	0.564
1	I:3:LEU:HD13	I:28:LEU:HD21	0.563

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:33:PHE:CD1	M:56:ILE:CB	0.563
1	D:134:GLU:OE2	D:135:LYS:NZ	0.563
1	L:73:GLU:N	L:73:GLU:OE1	0.563
1	L:189:ASP:N	L:189:ASP:OD1	0.563
1	A:570:ALA:HA	L:23:TYR:CZ	0.562
1	B:46:VAL:HB	B:34:ILE:HD11	0.562
1	J:145:LEU:CD2	M:6:ILE:CD1	0.562
1	J:168:TYR:HB2	J:249:VAL:HG11	0.562
1	K:33:PHE:CE1	K:56:ILE:HA	0.562
1	M:4:ILE:CD1	M:17:ASN:C	0.562
1	O:3:LEU:HB2	O:120:GLU:O	0.562
1	I:128:ASP:N	I:128:ASP:OD1	0.562
1	A:255:MET:HE1	D:238:LEU:HD23	0.561
1	J:65:ILE:O	J:65:ILE:HD12	0.561
1	K:33:PHE:CD2	K:49:LEU:HD21	0.561
1	K:149:GLN:CB	P:131:LEU:CA	0.561
1	N:3:LEU:HB2	N:120:GLU:O	0.561
1	N:147:ARG:HA	N:147:ARG:NE	0.561
1	P:147:ARG:HA	P:147:ARG:NE	0.561
1	O:159:PRO:O	O:260:LEU:CG	0.561
1	A:569:SER:HB2	L:23:TYR:CE2	0.560
1	K:65:ILE:O	K:65:ILE:HD12	0.560
1	L:1:MET:HE3	L:119:PHE:N	0.560

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:147:ARG:HA	O:147:ARG:NE	0.560
1	D:331:ASP:N	D:331:ASP:OD1	0.560
1	I:105:LEU:CD2	I:105:LEU:H	0.560
1	K:115:GLU:CD	K:115:GLU:H	0.560
1	J:148:ILE:HD11	M:46:TRP:HE1	0.559
1	M:147:ARG:HA	M:147:ARG:NE	0.559
1	N:38:ALA:HB3	N:58:LYS:HG3	0.559
1	I:155:LEU:CG	N:136:HIS:HB2	0.559
1	J:288:ARG:HH22	N:280:VAL:HB	0.559
1	J:115:GLU:CD	J:115:GLU:H	0.559
1	D:614:HIS:CD2	K:22:ARG:CD	0.558
1	O:37:ARG:HG2	O:58:LYS:C	0.558
1	O:38:ALA:HB3	O:58:LYS:HG3	0.558
1	G:357:LYS:HZ2	H:91:ASN:CA	0.558
1	I:73:GLU:N	I:73:GLU:OE1	0.558
1	I:21:LYS:HD3	I:24:PHE:CD2	0.557
1	I:98:GLU:CG	O:102:LEU:CB	0.557
1	L:21:LYS:HD3	L:24:PHE:CD2	0.557
1	L:145:LEU:HD12	O:125:GLU:OE2	0.557
1	I:142:TYR:CG	N:138:PHE:C	0.557
1	L:115:GLU:CD	L:115:GLU:H	0.557
1	E:417:TYR:O	E:420:LYS:NZ	0.557
1	C:538:LYS:HE2	C:561:ILE:HD11	0.556

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:134:GLN:HB2	I:136:HIS:HD2	0.556
1	J:1:MET:HE3	J:3:LEU:HD11	0.556
1	L:260:LEU:O	L:264:ILE:HG12	0.556
1	P:33:PHE:CD1	P:56:ILE:CA	0.556
1	E:287:LEU:HD21	E:422:PHE:CE2	0.555
1	I:124:ILE:HD12	I:151:HIS:CG	0.555
1	J:98:GLU:CA	P:99:VAL:CB	0.555
1	K:21:LYS:HD3	K:24:PHE:CD2	0.555
1	M:33:PHE:CD1	M:56:ILE:CA	0.555
1	J:145:LEU:O	M:133:LEU:HD21	0.555
1	N:69:TYR:HH	N:103:TYR:HB3	0.555
1	N:196:VAL:HG22	N:235:ILE:HD11	0.555
1	P:2:LYS:HA	P:120:GLU:CB	0.555
1	K:149:GLN:H	P:131:LEU:HD23	0.555
1	O:185:ARG:HH22	P:177:ALA:HA	0.555
1	L:105:LEU:CD2	L:105:LEU:H	0.555
1	M:34:ASP:H	M:56:ILE:N	0.555
1	D:538:LYS:HE2	D:561:ILE:HD11	0.554
1	J:149:GLN:CG	M:131:LEU:C	0.554
1	P:7:LYS:HG2	P:126:GLU:CG	0.554
1	P:33:PHE:CD1	P:56:ILE:CB	0.554
1	J:92:GLU:OE2	P:97:TYR:O	0.554
1	G:287:LEU:HD21	G:422:PHE:CE2	0.553

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:21:LYS:HD3	J:24:PHE:CD2	0.553
1	K:125:GLU:HB2	P:134:GLN:CD	0.553
1	I:97:TYR:O	O:98:GLU:C	0.553
1	P:138:PHE:CD1	P:138:PHE:N	0.553
1	I:115:GLU:CD	I:115:GLU:H	0.553
1	F:287:LEU:HD21	F:422:PHE:CE2	0.552
1	G:436:ILE:HG12	G:465:ILE:HB	0.552
1	I:32:LEU:H	I:56:ILE:HD12	0.552
1	L:241:LYS:HG2	L:242:ALA:H	0.552
1	M:153:MET:HE3	M:153:MET:O	0.552
1	J:155:LEU:HD11	M:136:HIS:O	0.551
1	J:281:GLU:HB3	J:287:GLY:HA2	0.551
1	L:285:CYS:HB3	L:288:ARG:HB3	0.551
1	N:1:MET:HE3	N:119:PHE:CG	0.551
1	I:155:LEU:CB	N:136:HIS:HB3	0.551
1	O:32:LEU:C	O:116:LYS:HZ1	0.551
1	P:37:ARG:HD3	P:59:GLN:CA	0.551
1	P:38:ALA:HB3	P:58:LYS:HG3	0.551
1	K:255:LYS:N	K:259:ASP:OD2	0.551
1	B:117:ASP:HB3	B:120:LYS:HE2	0.550
1	H:287:LEU:HD21	H:422:PHE:CE2	0.550
1	I:1:MET:HE3	I:119:PHE:N	0.550
1	J:110:ILE:CB	J:111:PRO:HD2	0.550

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:33:PHE:CE1	L:56:ILE:HA	0.550
1	L:32:LEU:H	L:56:ILE:HD12	0.550
1	L:145:LEU:CD1	O:125:GLU:OE2	0.550
1	L:174:HIS:CD2	L:268:LEU:HD13	0.550
1	M:37:ARG:HD3	M:59:GLN:CA	0.550
1	O:149:GLN:O	O:160:CYS:HB2	0.550
1	G:417:TYR:O	G:420:LYS:NZ	0.550
1	E:436:ILE:HG12	E:465:ILE:HB	0.549
1	F:436:ILE:HG12	F:465:ILE:HB	0.549
1	H:436:ILE:HG12	H:465:ILE:HB	0.549
1	K:55:VAL:CG2	K:55:VAL:N	0.549
1	L:3:LEU:N	L:120:GLU:C	0.549
1	N:2:LYS:HA	N:120:GLU:CB	0.549
1	O:2:LYS:HA	O:120:GLU:CB	0.549
1	I:98:GLU:OE1	O:101:GLY:HA3	0.549
1	K:3:LEU:O	K:121:MET:CA	0.549
1	I:7:LYS:HB3	I:125:GLU:O	0.548
1	J:55:VAL:CG2	J:55:VAL:N	0.548
1	K:168:TYR:HB2	K:249:VAL:HG11	0.548
1	L:7:LYS:HB3	L:125:GLU:O	0.548
1	M:2:LYS:HA	M:120:GLU:CB	0.548
1	M:7:LYS:HG2	M:126:GLU:CG	0.548
1	M:38:ALA:HB3	M:58:LYS:HG3	0.548

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:37:ARG:HD3	O:59:GLN:CA	0.548
1	A:245:THR:OG1	I:217:LYS:NZ	0.548
1	I:189:ASP:N	I:189:ASP:OD2	0.548
1	B:593:LEU:HD13	D:460:GLY:HA3	0.547
1	J:7:LYS:HB3	J:125:GLU:O	0.547
1	J:12:PHE:CE1	J:121:MET:CE	0.547
1	K:110:ILE:CB	K:111:PRO:HD2	0.547
1	L:3:LEU:O	L:121:MET:CA	0.547
1	N:280:VAL:HG12	N:282:CYS:H	0.547
1	P:60:MET:CG	P:61:PRO:CD	0.547
1	I:97:TYR:HE1	O:100:LYS:N	0.547
1	E:357:LYS:NZ	F:91:ASN:H	0.547
1	I:149:GLN:HB3	N:131:LEU:CD2	0.546
1	J:56:ILE:HD11	J:116:LYS:HB3	0.546
1	K:92:GLU:HG3	M:100:LYS:HE2	0.546
1	L:201:GLU:HB3	L:230:LYS:HG2	0.546
1	J:142:TYR:N	M:138:PHE:CA	0.546
1	O:4:ILE:CD1	O:17:ASN:C	0.546
1	O:155:LEU:C	O:161:TYR:CZ	0.546
1	J:3:LEU:O	J:121:MET:CA	0.546
1	E:33:ASP:OD2	E:157:LYS:HE3	0.545
1	F:328:GLU:HG3	F:346:GLU:HG2	0.545
1	G:33:ASP:OD2	G:157:LYS:HE3	0.545

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:33:PHE:CE1	I:56:ILE:HA	0.545
1	I:56:ILE:HD11	I:116:LYS:HB3	0.545
1	K:7:LYS:HB3	K:125:GLU:O	0.545
1	K:56:ILE:HD11	K:116:LYS:HB3	0.545
1	L:55:VAL:CG2	L:55:VAL:N	0.545
1	L:56:ILE:HD11	L:116:LYS:HB3	0.545
1	M:6:ILE:HD12	M:46:TRP:CZ2	0.545
1	M:182:LYS:HA	M:204:LYS:HG3	0.545
1	N:37:ARG:HD3	N:59:GLN:CA	0.545
1	O:1:MET:HE3	O:119:PHE:CG	0.545
1	O:33:PHE:CD1	O:56:ILE:CA	0.545
1	L:149:GLN:OE1	O:133:LEU:CD2	0.545
1	P:170:ILE:HD12	P:264:ILE:HD11	0.545
1	C:147:LYS:HA	G:150:TYR:CD1	0.544
1	D:274:LYS:HE2	D:274:LYS:N	0.544
1	J:6:ILE:CG2	J:154:LEU:HD11	0.544
1	J:37:ARG:CG	J:57:GLU:CG	0.544
1	A:331:ASP:N	A:331:ASP:OD1	0.544
1	N:32:LEU:O	N:56:ILE:N	0.544
1	P:34:ASP:H	P:56:ILE:N	0.544
1	P:256:ASP:OD2	P:257:VAL:N	0.544
1	B:300:LYS:HG2	B:307:TYR:HE2	0.543
1	C:518:ILE:HD11	C:536:ARG:HG2	0.543

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	G:278:LEU:HD11	G:465:ILE:HG13	0.543
1	I:55:VAL:CG2	I:55:VAL:N	0.543
1	M:171:ILE:HG22	M:268:LEU:HD21	0.543
1	N:33:PHE:CD1	N:56:ILE:CA	0.543
1	N:149:GLN:O	N:160:CYS:HA	0.543
1	P:36:LYS:N	P:57:GLU:HB3	0.543
1	F:163:TYR:OH	F:171:HIS:ND1	0.543
1	M:32:LEU:O	M:56:ILE:N	0.543
1	N:2:LYS:C	N:120:GLU:N	0.543
1	O:32:LEU:O	O:56:ILE:N	0.543
1	G:328:GLU:HG3	G:346:GLU:HG2	0.542
1	I:216:TYR:HB2	I:219:ARG:HD3	0.542
1	K:32:LEU:H	K:56:ILE:HD12	0.542
1	M:33:PHE:CE1	M:53:PRO:CG	0.542
1	I:142:TYR:O	N:140:LEU:C	0.542
1	H:163:TYR:OH	H:171:HIS:ND1	0.542
1	L:255:LYS:N	L:259:ASP:OD2	0.542
1	E:278:LEU:HD11	E:465:ILE:HG13	0.541
1	E:328:GLU:HG3	E:346:GLU:HG2	0.541
1	L:155:LEU:HD13	O:136:HIS:CB	0.541
1	M:36:LYS:C	M:57:GLU:CG	0.541
1	M:36:LYS:N	M:57:GLU:HB3	0.541
1	N:37:ARG:HG2	N:58:LYS:C	0.541

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	P:12:PHE:CE1	P:52:GLU:HG3	0.541
1	O:143:ASN:N	O:143:ASN:OD1	0.541
1	H:328:GLU:HG3	H:346:GLU:HG2	0.540
1	J:144:LEU:CD2	M:140:LEU:CD2	0.540
1	K:124:ILE:CD1	K:151:HIS:CE1	0.540
1	O:138:PHE:CD1	O:138:PHE:N	0.540
1	E:224:ASN:O	E:232:GLN:NE2	0.540
1	F:224:ASN:O	F:232:GLN:NE2	0.540
1	H:224:ASN:O	H:232:GLN:NE2	0.540
1	N:143:ASN:N	N:143:ASN:OD1	0.540
1	B:555:ARG:HD3	B:622:GLU:HG2	0.539
1	I:43:LYS:HD3	I:46:TRP:HD1	0.539
1	M:1:MET:HE1	M:31:LEU:CD1	0.539
1	M:12:PHE:CE1	M:52:GLU:HG3	0.539
1	M:149:GLN:O	M:160:CYS:CA	0.539
1	N:12:PHE:CE1	N:52:GLU:HG3	0.539
1	P:1:MET:HE1	P:31:LEU:CD1	0.539
1	G:224:ASN:O	G:232:GLN:NE2	0.539
1	K:199:VAL:HG22	K:232:GLU:HG2	0.538
1	L:43:LYS:HD3	L:46:TRP:HD1	0.538
1	J:255:LYS:NZ	M:145:LEU:HD12	0.538
1	N:1:MET:HE1	N:31:LEU:CD1	0.538
1	C:448:GLU:HG3	D:274:LYS:HE3	0.537

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:55:VAL:HG11	J:116:LYS:HG3	0.537
1	J:32:LEU:H	J:56:ILE:HD12	0.537
1	K:42:TYR:CD1	K:133:LEU:HD23	0.537
1	N:4:ILE:CD1	N:17:ASN:C	0.537
1	O:1:MET:HE1	O:31:LEU:CD1	0.537
1	B:215:LYS:NZ	B:219:GLN:OE1	0.537
1	D:147:LYS:HA	H:150:TYR:CD1	0.536
1	I:55:VAL:HG11	I:116:LYS:HG3	0.536
1	I:148:ILE:HD13	N:46:TRP:NE1	0.536
1	K:37:ARG:CG	K:57:GLU:CG	0.536
1	L:125:GLU:HB3	L:154:LEU:HD11	0.536
1	N:2:LYS:N	N:119:PHE:HA	0.536
1	O:12:PHE:CE1	O:52:GLU:HG3	0.536
1	O:5:GLY:HA3	O:14:VAL:HA	0.536
1	O:43:LYS:HD3	O:46:TRP:HD1	0.536
1	P:12:PHE:HD1	P:52:GLU:HA	0.536
1	P:32:LEU:O	P:56:ILE:N	0.536
1	H:33:ASP:OD2	H:157:LYS:HE3	0.535
1	J:71:LEU:HD12	J:75:PHE:HB3	0.535
1	J:144:LEU:HD23	M:140:LEU:CD2	0.535
1	K:1:MET:HG2	K:119:PHE:HB3	0.535
1	K:16:ASP:HB3	K:28:LEU:HD12	0.535
1	L:80:LEU:CD2	L:80:LEU:H	0.535

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:32:LEU:C	M:116:LYS:HZ1	0.535
1	M:138:PHE:CD1	M:138:PHE:N	0.535
1	N:119:PHE:C	N:119:PHE:CD1	0.535
1	O:36:LYS:HB3	O:57:GLU:HG2	0.535
1	L:31:LEU:N	L:56:ILE:O	0.535
1	P:18:ILE:CD1	P:18:ILE:H	0.535
1	F:33:ASP:OD2	F:157:LYS:HE3	0.534
1	G:233:ASN:HA	G:246:ILE:HG21	0.534
1	I:71:LEU:HD12	I:75:PHE:HB3	0.534
1	J:16:ASP:HB3	J:28:LEU:HD12	0.534
1	J:98:GLU:C	P:99:VAL:CA	0.534
1	J:98:GLU:HB3	P:99:VAL:CG1	0.534
1	K:55:VAL:HG11	K:116:LYS:HG3	0.534
1	N:32:LEU:C	N:116:LYS:HZ1	0.534
1	I:31:LEU:N	I:56:ILE:O	0.534
1	B:223:TYR:OH	B:327:LYS:O	0.534
1	I:169:LYS:NZ	I:173:ASN:OD1	0.534
1	B:315:MET:HA	B:315:MET:HE2	0.533
1	E:233:ASN:HA	E:246:ILE:HG21	0.533
1	F:278:LEU:HD11	F:465:ILE:HG13	0.533
1	H:278:LEU:HD11	H:465:ILE:HG13	0.533
1	L:55:VAL:HG11	L:116:LYS:HG3	0.533
1	L:110:ILE:CB	L:111:PRO:HD2	0.533

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:33:PHE:C	N:35:GLY:N	0.533
1	O:33:PHE:C	O:35:GLY:N	0.533
1	M:143:ASN:N	M:143:ASN:OD1	0.533
1	J:163:SER:O	J:167:SER:OG	0.533
1	D:518:ILE:HD11	D:536:ARG:HG2	0.532
1	I:1:MET:CE	I:119:PHE:CA	0.532
1	I:140:LEU:HD21	I:257:VAL:HG22	0.532
1	L:71:LEU:HD12	L:75:PHE:HB3	0.532
1	M:36:LYS:CB	M:57:GLU:HB3	0.532
1	O:33:PHE:CD1	O:56:ILE:CB	0.532
1	P:36:LYS:CB	P:57:GLU:HB3	0.532
1	K:4:ILE:CG1	K:15:SER:O	0.532
1	I:98:GLU:CB	O:102:LEU:CD2	0.531
1	N:43:LYS:HD3	N:46:TRP:HD1	0.531
1	N:138:PHE:CD1	N:138:PHE:N	0.531
1	I:98:GLU:CB	O:99:VAL:HG13	0.531
1	O:119:PHE:C	O:119:PHE:CD1	0.531
1	P:283:LYS:HE3	P:284:CYS:HB3	0.531
1	N:68:ARG:CG	N:68:ARG:HH11	0.531
1	D:216:LEU:O	D:220:ASN:ND2	0.531
1	I:142:TYR:O	N:140:LEU:CA	0.531
1	J:128:ASP:N	J:128:ASP:OD1	0.531
1	D:555:ARG:HD3	D:622:GLU:HG2	0.530

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:3:LEU:O	I:121:MET:CA	0.530
1	K:211:ASP:HB3	K:214:ALA:HB2	0.530
1	L:1:MET:CE	L:119:PHE:CA	0.530
1	L:275:ILE:H	L:275:ILE:HD12	0.530
1	M:1:MET:CG	M:119:PHE:CB	0.530
1	N:33:PHE:CD1	N:56:ILE:CB	0.530
1	N:36:LYS:HB3	N:57:GLU:HG2	0.530
1	O:127:ILE:HD13	O:131:LEU:CD1	0.530
1	P:119:PHE:C	P:119:PHE:CD1	0.530
1	I:155:LEU:CG	N:136:HIS:HD2	0.530
1	P:143:ASN:N	P:143:ASN:OD1	0.530
1	J:130:GLU:C	J:132:LYS:CE	0.529
1	J:147:ARG:C	J:147:ARG:HD3	0.529
1	N:5:GLY:HA3	N:14:VAL:HA	0.529
1	P:43:LYS:HD3	P:46:TRP:HD1	0.529
1	O:34:ASP:H	O:56:ILE:N	0.529
1	I:110:ILE:CB	I:111:PRO:HD2	0.528
1	J:43:LYS:HD3	J:46:TRP:HD1	0.528
1	J:140:LEU:HD22	J:257:VAL:HG22	0.528
1	J:145:LEU:CD2	M:6:ILE:HD13	0.528
1	J:154:LEU:HB2	M:134:GLN:CD	0.528
1	K:71:LEU:HD12	K:75:PHE:HB3	0.528
1	O:163:SER:OG	O:164:GLN:N	0.528

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	C:618:ALA:HB3	N:23:TYR:OH	0.528
1	P:69:TYR:HH	P:103:TYR:HD1	0.528
1	B:346:HIS:HB3	B:349:MET:HE3	0.527
1	I:119:PHE:C	I:119:PHE:CD1	0.527
1	J:7:LYS:HB2	J:123:VAL:HG11	0.527
1	J:90:ILE:HA	J:96:TYR:CD2	0.527
1	K:43:LYS:HD3	K:46:TRP:HD1	0.527
1	L:5:GLY:HA3	L:14:VAL:HA	0.527
1	L:16:ASP:HB3	L:28:LEU:HD12	0.527
1	B:587:TYR:O	B:595:ASN:ND2	0.527
1	I:82:PRO:HD2	I:96:TYR:HE1	0.526
1	L:271:LEU:O	L:275:ILE:HD12	0.526
1	N:127:ILE:HD13	N:131:LEU:CD1	0.526
1	D:587:TYR:O	D:595:ASN:ND2	0.526
1	G:410:ILE:HA	G:413:ASP:HB2	0.525
1	I:12:PHE:CE1	I:121:MET:CE	0.525
1	J:82:PRO:HD2	J:96:TYR:HE1	0.525
1	J:143:ASN:C	M:139:ASN:CA	0.525
1	K:82:PRO:HD2	K:96:TYR:HE1	0.525
1	K:90:ILE:HA	K:96:TYR:CD2	0.525
1	L:37:ARG:N	L:57:GLU:CG	0.525
1	P:33:PHE:HE1	P:53:PRO:CD	0.525
1	A:276:GLU:OE2	J:241:LYS:NZ	0.525

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:68:ARG:CG	O:68:ARG:HH11	0.525
1	B:66:ASN:HB3	B:393:VAL:HG21	0.524
1	E:410:ILE:HA	E:413:ASP:HB2	0.524
1	H:233:ASN:HA	H:246:ILE:HG21	0.524
1	I:3:LEU:N	I:120:GLU:C	0.524
1	J:37:ARG:N	J:57:GLU:CG	0.524
1	J:97:TYR:CE1	P:100:LYS:HE3	0.524
1	K:37:ARG:N	K:57:GLU:CG	0.524
1	K:131:LEU:HD21	K:153:MET:CE	0.524
1	M:119:PHE:C	M:119:PHE:CD1	0.524
1	J:146:ASP:C	M:133:LEU:HD23	0.524
1	M:33:PHE:HE1	M:53:PRO:CD	0.524
1	K:136:HIS:ND1	K:136:HIS:O	0.524
1	N:34:ASP:H	N:56:ILE:N	0.524
1	K:128:ASP:N	K:128:ASP:OD1	0.524
1	D:392:LYS:HA	D:392:LYS:HE2	0.523
1	F:233:ASN:HA	F:246:ILE:HG21	0.523
1	I:7:LYS:HB2	I:123:VAL:HG11	0.523
1	I:37:ARG:N	I:57:GLU:CG	0.523
1	I:63:LYS:CE	I:112:GLN:HA	0.523
1	K:147:ARG:C	K:147:ARG:HD3	0.523
1	L:90:ILE:HA	L:96:TYR:CD2	0.523
1	M:38:ALA:O	M:58:LYS:HG2	0.523

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:144:LEU:N	M:139:ASN:HB2	0.523
1	P:38:ALA:O	P:58:LYS:HG2	0.523
1	I:55:VAL:CB	I:55:VAL:N	0.523
1	B:203:LYS:HB2	B:332:LYS:HD3	0.522
1	I:90:ILE:HA	I:96:TYR:CD2	0.522
1	I:208:TYR:CE1	I:226:ARG:HB2	0.522
1	J:125:GLU:HB3	J:154:LEU:HD21	0.522
1	K:7:LYS:HB2	K:123:VAL:HG11	0.522
1	L:97:TYR:CE1	N:101:GLY:N	0.522
1	M:17:ASN:HB2	M:24:PHE:CD1	0.522
1	M:70:GLU:HA	M:70:GLU:OE1	0.522
1	J:142:TYR:N	M:138:PHE:HB3	0.522
1	N:204:LYS:HG3	N:205:PRO:HD3	0.522
1	O:36:LYS:CB	O:57:GLU:HB3	0.522
1	O:69:TYR:HH	O:103:TYR:HB3	0.522
1	L:145:LEU:HD12	O:127:ILE:HD11	0.522
1	P:147:ARG:CA	P:147:ARG:NE	0.522
1	A:238:LEU:HD21	I:215:MET:HG3	0.521
1	D:618:ALA:CB	P:23:TYR:HH	0.521
1	K:226:ARG:HB3	K:226:ARG:HH11	0.521
1	L:82:PRO:HD2	L:96:TYR:HE1	0.521
1	M:43:LYS:HD3	M:46:TRP:HD1	0.521
1	O:2:LYS:N	O:119:PHE:HA	0.521

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:152:PRO:HA	O:136:HIS:CB	0.521
1	P:17:ASN:HB2	P:24:PHE:CD1	0.521
1	L:55:VAL:CB	L:55:VAL:N	0.521
1	G:22:LYS:HE3	G:162:GLU:OE2	0.520
1	J:54:SER:C	J:54:SER:CB	0.520
1	J:125:GLU:HB3	J:154:LEU:CD2	0.520
1	J:141:ASN:HA	M:138:PHE:HA	0.520
1	K:1:MET:CE	K:119:PHE:CA	0.520
1	K:124:ILE:HD12	K:151:HIS:CE1	0.520
1	L:12:PHE:CE1	L:121:MET:CE	0.520
1	M:6:ILE:CG1	M:124:ILE:HD11	0.520
1	N:6:ILE:CG1	N:124:ILE:HD11	0.520
1	N:17:ASN:HB2	N:24:PHE:CD1	0.520
1	N:31:LEU:HD12	N:117:ILE:HD12	0.520
1	I:92:GLU:O	O:101:GLY:HA3	0.520
1	K:144:LEU:N	P:140:LEU:HD23	0.520
1	P:154:LEU:HD21	P:255:LYS:O	0.520
1	I:143:ASN:HD22	N:140:LEU:HD13	0.520
1	M:4:ILE:CG1	M:15:SER:O	0.520
1	E:22:LYS:HE3	E:162:GLU:OE2	0.519
1	J:119:PHE:C	J:119:PHE:CD1	0.519
1	L:119:PHE:C	L:119:PHE:CD1	0.519
1	M:60:MET:CB	M:61:PRO:HD2	0.519

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:155:LEU:HD11	M:255:LYS:HB3	0.519
1	O:38:ALA:O	O:58:LYS:HG2	0.519
1	P:6:ILE:CD1	P:124:ILE:HD11	0.519
1	B:147:LYS:HA	F:150:TYR:CD1	0.518
1	L:37:ARG:HG3	L:57:GLU:CD	0.518
1	M:6:ILE:CD1	M:124:ILE:HD11	0.518
1	J:255:LYS:HZ3	M:145:LEU:HD12	0.518
1	M:147:ARG:CA	M:147:ARG:NE	0.518
1	O:17:ASN:HB2	O:24:PHE:CD1	0.518
1	F:22:LYS:HE3	F:162:GLU:OE2	0.517
1	H:22:LYS:HE3	H:162:GLU:OE2	0.517
1	I:37:ARG:HG3	I:57:GLU:CD	0.517
1	K:97:TYR:CZ	M:97:TYR:CG	0.517
1	O:6:ILE:CD1	O:124:ILE:HD11	0.517
1	O:31:LEU:HD12	O:117:ILE:HD12	0.517
1	J:63:LYS:H	J:63:LYS:HD2	0.517
1	D:245:THR:OG1	J:217:LYS:NZ	0.517
1	A:618:ALA:CB	O:23:TYR:HH	0.516
1	I:16:ASP:HB3	I:28:LEU:HD12	0.516
1	J:63:LYS:CD	J:63:LYS:N	0.516
1	K:11:CYS:SG	K:48:LYS:HG3	0.516
1	K:98:GLU:HG2	M:102:LEU:HB2	0.516
1	K:119:PHE:C	K:119:PHE:CD1	0.516

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:7:LYS:HB2	L:123:VAL:HG11	0.516
1	M:166:GLU:HA	M:169:LYS:HB2	0.516
1	G:163:TYR:OH	G:171:HIS:ND1	0.516
1	I:255:LYS:N	I:259:ASP:OD2	0.516
1	A:555:ARG:HD3	A:622:GLU:HG2	0.515
1	J:63:LYS:CE	J:112:GLN:HA	0.515
1	J:151:HIS:CG	M:135:SER:N	0.515
1	K:54:SER:C	K:54:SER:CB	0.515
1	K:63:LYS:H	K:63:LYS:HD2	0.515
1	N:147:ARG:CA	N:147:ARG:NE	0.515
1	O:147:ARG:CA	O:147:ARG:NE	0.515
1	P:6:ILE:CG1	P:124:ILE:HD11	0.515
1	P:5:GLY:HA3	P:14:VAL:HA	0.515
1	P:33:PHE:C	P:35:GLY:N	0.515
1	P:3:LEU:HB2	P:119:PHE:CD1	0.515
1	E:120:ASN:ND2	E:120:ASN:O	0.515
1	F:410:ILE:HA	F:413:ASP:HB2	0.514
1	I:153:MET:HE3	I:153:MET:O	0.514
1	J:1:MET:CE	J:119:PHE:CA	0.514
1	J:11:CYS:SG	J:48:LYS:HG3	0.514
1	K:285:CYS:SG	K:288:ARG:HD2	0.514
1	L:11:CYS:SG	L:48:LYS:HG3	0.514
1	N:6:ILE:CD1	N:124:ILE:HD11	0.514

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:6:ILE:CG1	O:124:ILE:HD11	0.514
1	O:149:GLN:HG2	P:215:MET:SD	0.514
1	P:32:LEU:N	P:116:LYS:HD3	0.514
1	D:557:TYR:OH	D:622:GLU:OE1	0.514
1	I:63:LYS:H	I:63:LYS:HD2	0.513
1	I:80:LEU:CD2	I:80:LEU:H	0.513
1	I:207:GLU:HG3	I:227:PHE:CE1	0.513
1	K:63:LYS:CD	K:63:LYS:N	0.513
1	K:64:LYS:NZ	K:109:GLU:HA	0.513
1	K:149:GLN:CB	P:132:LYS:N	0.513
1	M:6:ILE:HG13	M:124:ILE:CD1	0.513
1	N:36:LYS:CB	N:57:GLU:HB3	0.513
1	N:70:GLU:HA	N:70:GLU:OE1	0.513
1	O:12:PHE:HD1	O:52:GLU:HA	0.513
1	P:60:MET:CB	P:61:PRO:HD2	0.513
1	F:120:ASN:ND2	F:120:ASN:O	0.513
1	G:120:ASN:ND2	G:120:ASN:O	0.513
1	H:120:ASN:ND2	H:120:ASN:O	0.513
1	K:86:LYS:CD	K:86:LYS:N	0.513
1	J:64:LYS:NZ	J:109:GLU:HA	0.512
1	J:143:ASN:C	M:139:ASN:CB	0.512
1	K:131:LEU:HD21	K:153:MET:O	0.512
1	L:6:ILE:CD1	L:153:MET:HG2	0.512

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:63:LYS:H	L:63:LYS:HD2	0.512
1	M:196:VAL:HG13	M:236:TYR:HB3	0.512
1	E:163:TYR:OH	E:171:HIS:ND1	0.512
1	C:557:TYR:OH	C:622:GLU:OE1	0.512
1	B:518:ILE:HD11	B:536:ARG:HG2	0.511
1	C:311:GLY:HA2	C:314:LYS:HG3	0.511
1	I:11:CYS:SG	I:48:LYS:HG3	0.511
1	I:242:ALA:HA	I:248:ILE:HD11	0.511
1	J:98:GLU:HB3	P:99:VAL:HG12	0.511
1	L:147:ARG:C	L:147:ARG:HD3	0.511
1	M:60:MET:CB	M:61:PRO:CD	0.511
1	N:38:ALA:O	N:58:LYS:HG2	0.511
1	L:97:TYR:HE2	N:97:TYR:C	0.511
1	P:4:ILE:CD1	P:17:ASN:C	0.511
1	D:388:HIS:NE2	D:396:SER:OG	0.511
1	D:383:ARG:NH1	D:397:SER:OG	0.511
1	G:178:LYS:NZ	G:179:ASP:OD1	0.511
1	N:32:LEU:HD23	N:57:GLU:OE1	0.511
1	I:5:GLY:HA3	I:14:VAL:HA	0.510
1	I:149:GLN:CG	N:131:LEU:CA	0.510
1	J:127:ILE:HD11	J:154:LEU:CD1	0.510
1	P:60:MET:CB	P:61:PRO:CD	0.510
1	P:70:GLU:HA	P:70:GLU:OE1	0.510

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:614:HIS:HD1	B:616:LYS:H	0.510
1	J:86:LYS:CD	J:86:LYS:N	0.510
1	L:86:LYS:CD	L:86:LYS:N	0.510
1	F:178:LYS:NZ	F:179:ASP:OD1	0.510
1	H:410:ILE:HA	H:413:ASP:HB2	0.509
1	I:31:LEU:C	I:57:GLU:HB2	0.509
1	I:76:GLN:HA	I:76:GLN:NE2	0.509
1	I:142:TYR:CB	N:139:ASN:CA	0.509
1	L:31:LEU:C	L:57:GLU:HB2	0.509
1	L:76:GLN:HA	L:76:GLN:NE2	0.509
1	L:262:SER:HA	L:265:LYS:HG2	0.509
1	M:32:LEU:N	M:116:LYS:HD3	0.509
1	M:159:PRO:C	M:254:GLY:CA	0.509
1	N:12:PHE:HD1	N:52:GLU:HA	0.509
1	P:32:LEU:C	P:116:LYS:HZ1	0.509
1	A:614:HIS:HD1	A:616:LYS:H	0.509
1	P:284:CYS:SG	P:285:CYS:N	0.509
1	E:178:LYS:NZ	E:179:ASP:OD1	0.509
1	F:49:THR:OG1	F:345:ALA:O	0.509
1	L:142:TYR:CG	O:138:PHE:O	0.509
1	I:54:SER:C	I:54:SER:CB	0.508
1	K:63:LYS:CE	K:112:GLN:HA	0.508
1	K:144:LEU:HG	P:140:LEU:HD23	0.508

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:98:GLU:C	O:99:VAL:HG22	0.508
1	O:181:PRO:HG2	P:179:ILE:O	0.508
1	P:31:LEU:HD12	P:117:ILE:HD12	0.508
1	I:86:LYS:CD	I:86:LYS:N	0.508
1	D:215:LYS:C	D:215:LYS:HD3	0.507
1	I:97:TYR:CE1	O:100:LYS:HB3	0.507
1	I:12:PHE:CZ	I:121:MET:HE3	0.507
1	J:76:GLN:HA	J:76:GLN:NE2	0.507
1	J:69:TYR:HE2	J:103:TYR:HB3	0.507
1	K:149:GLN:HG3	P:131:LEU:HD21	0.507
1	L:64:LYS:NZ	L:109:GLU:HA	0.507
1	L:12:PHE:CZ	L:121:MET:HE3	0.507
1	N:60:MET:CB	N:61:PRO:CD	0.507
1	O:70:GLU:HA	O:70:GLU:OE1	0.507
1	P:36:LYS:HB3	P:57:GLU:HG2	0.507
1	A:557:TYR:OH	A:622:GLU:OE1	0.507
1	O:150:THR:CA	O:160:CYS:SG	0.507
1	D:66:ASN:HB2	D:393:VAL:HG21	0.506
1	E:240:GLU:HA	E:243:ARG:HD2	0.506
1	H:240:GLU:HA	H:243:ARG:HD2	0.506
1	I:64:LYS:NZ	I:109:GLU:HA	0.506
1	J:7:LYS:HB2	J:123:VAL:CG1	0.506
1	K:69:TYR:HE2	K:103:TYR:HB3	0.506

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:206:HIS:HB3	K:228:GLN:HG3	0.506
1	L:7:LYS:HB2	L:123:VAL:CG1	0.506
1	K:98:GLU:CA	M:99:VAL:HA	0.506
1	N:155:LEU:CD2	N:255:LYS:HD2	0.506
1	P:2:LYS:CA	P:120:GLU:CB	0.506
1	K:255:LYS:HZ1	P:145:LEU:HD11	0.506
1	H:49:THR:OG1	H:345:ALA:O	0.506
1	P:32:LEU:HD23	P:57:GLU:OE1	0.506
1	E:233:ASN:HB3	E:489:ILE:HD11	0.505
1	I:12:PHE:CD1	I:52:GLU:CA	0.505
1	K:7:LYS:HB2	K:123:VAL:CG1	0.505
1	K:76:GLN:HA	K:76:GLN:NE2	0.505
1	L:90:ILE:HD13	L:96:TYR:HB2	0.505
1	L:98:GLU:CG	N:101:GLY:HA3	0.505
1	M:2:LYS:C	M:119:PHE:HB2	0.505
1	O:60:MET:CB	O:61:PRO:CD	0.505
1	P:6:ILE:HG13	P:124:ILE:CD1	0.505
1	P:174:HIS:ND1	P:268:LEU:HD13	0.505
1	N:32:LEU:H	N:116:LYS:CD	0.505
1	O:40:GLU:OE1	O:59:GLN:CD	0.505
1	J:97:TYR:CZ	P:96:TYR:O	0.505
1	D:238:LEU:HD11	J:215:MET:HG3	0.504
1	L:134:GLN:HG2	L:257:VAL:HG11	0.504

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:2:LYS:CA	M:120:GLU:CB	0.504
1	N:61:PRO:HG3	N:115:GLU:HG3	0.504
1	O:61:PRO:HG3	O:115:GLU:HG3	0.504
1	P:1:MET:HG2	P:119:PHE:HA	0.504
1	P:2:LYS:C	P:119:PHE:HB2	0.504
1	N:40:GLU:OE1	N:59:GLN:CD	0.504
1	A:538:LYS:HE2	A:561:ILE:HD11	0.503
1	I:7:LYS:HB2	I:123:VAL:CG1	0.503
1	I:90:ILE:HD13	I:96:TYR:HB2	0.503
1	J:107:PHE:CD1	J:107:PHE:N	0.503
1	J:125:GLU:CD	J:154:LEU:HB3	0.503
1	L:63:LYS:CD	L:63:LYS:N	0.503
1	N:2:LYS:C	N:119:PHE:HB2	0.503
1	C:245:THR:OG1	L:217:LYS:NZ	0.503
1	J:189:ASP:N	J:189:ASP:OD2	0.503
1	L:93:ASP:N	L:93:ASP:OD2	0.503
1	N:4:ILE:CG1	N:15:SER:O	0.503
1	F:233:ASN:HB3	F:489:ILE:HD11	0.502
1	G:233:ASN:HB3	G:489:ILE:HD11	0.502
1	G:240:GLU:HA	G:243:ARG:HD2	0.502
1	I:144:LEU:CA	N:139:ASN:CB	0.502
1	I:149:GLN:CG	N:131:LEU:CB	0.502
1	K:12:PHE:CD1	K:52:GLU:CA	0.502

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:39:THR:HA	K:58:LYS:HZ2	0.502
1	K:31:LEU:C	K:57:GLU:HB2	0.502
1	K:149:GLN:HB3	P:131:LEU:CG	0.502
1	M:36:LYS:HB3	M:57:GLU:HG2	0.502
1	M:174:HIS:CG	M:268:LEU:HD13	0.502
1	N:6:ILE:HG13	N:124:ILE:CD1	0.502
1	O:2:LYS:C	O:119:PHE:HB2	0.502
1	P:33:PHE:CE1	P:53:PRO:N	0.502
1	P:110:ILE:HG13	P:111:PRO:HD2	0.502
1	P:2:LYS:N	P:119:PHE:HA	0.502
1	K:255:LYS:HZ3	P:145:LEU:CD1	0.502
1	E:49:THR:OG1	E:345:ALA:O	0.502
1	N:164:GLN:O	N:167:SER:OG	0.502
1	A:569:SER:CA	L:23:TYR:CD2	0.501
1	F:240:GLU:HA	F:243:ARG:HD2	0.501
1	H:470:ASN:HD21	H:472:LYS:HB2	0.501
1	I:63:LYS:CD	I:63:LYS:N	0.501
1	K:107:PHE:CD1	K:107:PHE:N	0.501
1	L:54:SER:C	L:54:SER:CB	0.501
1	P:252:PHE:HB3	P:260:LEU:HD11	0.501
1	N:33:PHE:HE1	N:53:PRO:CD	0.501
1	D:154:ASN:ND2	D:182:GLU:OE2	0.501
1	D:219:GLN:N	D:219:GLN:OE1	0.501

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:93:ASP:N	K:93:ASP:OD2	0.501
1	J:146:ASP:C	M:133:LEU:CD2	0.500
1	D:569:SER:HA	K:23:TYR:CD2	0.500
1	L:12:PHE:CD1	L:52:GLU:CA	0.500
1	M:80:LEU:CD2	M:80:LEU:H	0.500
1	O:6:ILE:HG13	O:124:ILE:CD1	0.500
1	O:60:MET:CB	O:61:PRO:HD2	0.500
1	A:147:LYS:HA	E:150:TYR:CD1	0.499
1	F:470:ASN:HD21	F:472:LYS:HB2	0.499
1	K:15:SER:HB2	K:46:TRP:CD2	0.499
1	K:37:ARG:HG3	K:57:GLU:CD	0.499
1	K:90:ILE:HD13	K:96:TYR:HB2	0.499
1	K:226:ARG:HB3	K:226:ARG:NH1	0.499
1	M:5:GLY:HA3	M:14:VAL:HA	0.499
1	J:93:ASP:N	J:93:ASP:OD2	0.499
1	I:279:LEU:HB3	I:290:VAL:HG21	0.498
1	J:31:LEU:C	J:57:GLU:HB2	0.498
1	K:42:TYR:HB3	K:133:LEU:CD1	0.498
1	L:69:TYR:HE2	L:103:TYR:HB3	0.498
1	L:141:ASN:HB2	L:161:TYR:CE2	0.498
1	M:33:PHE:C	M:35:GLY:N	0.498
1	J:147:ARG:O	M:133:LEU:HB3	0.498
1	E:120:ASN:ND2	F:120:ASN:ND2	0.498

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	D:303:ASP:OD2	D:307:TYR:OH	0.498
1	P:32:LEU:O	P:116:LYS:NZ	0.498
1	I:209:ILE:HD11	I:223:LEU:HB3	0.497
1	J:37:ARG:HG3	J:57:GLU:CD	0.497
1	J:109:GLU:HG2	J:109:GLU:O	0.497
1	K:109:GLU:HG2	K:109:GLU:O	0.497
1	N:2:LYS:CA	N:120:GLU:CB	0.497
1	O:33:PHE:HE1	O:53:PRO:CD	0.497
1	K:55:VAL:CB	K:55:VAL:N	0.497
1	B:282:LYS:HG3	C:306:TYR:HE1	0.496
1	H:233:ASN:HB3	H:489:ILE:HD11	0.496
1	I:15:SER:HB2	I:46:TRP:CD2	0.496
1	I:98:GLU:HB3	O:99:VAL:CG1	0.496
1	J:125:GLU:CB	J:154:LEU:CD2	0.496
1	L:37:ARG:CG	L:57:GLU:CG	0.496
1	N:60:MET:CB	N:61:PRO:HD2	0.496
1	P:33:PHE:CD1	P:56:ILE:HA	0.496
1	N:18:ILE:CD1	N:18:ILE:H	0.496
1	G:49:THR:OG1	G:345:ALA:O	0.496
1	E:470:ASN:HD21	E:472:LYS:HB2	0.495
1	I:39:THR:HA	I:58:LYS:HZ2	0.495
1	I:1:MET:CG	I:119:PHE:CA	0.495
1	J:12:PHE:CD1	J:52:GLU:CA	0.495

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:5:GLY:HA3	J:14:VAL:HA	0.495
1	J:75:PHE:CZ	J:99:VAL:HG11	0.495
1	J:90:ILE:HD13	J:96:TYR:HB2	0.495
1	K:131:LEU:CD2	K:153:MET:HE1	0.495
1	L:13:LEU:HD23	L:48:LYS:HA	0.495
1	L:15:SER:HB2	L:46:TRP:CD2	0.495
1	L:107:PHE:CD1	L:107:PHE:N	0.495
1	M:31:LEU:HD12	M:117:ILE:HD12	0.495
1	O:2:LYS:CA	O:120:GLU:CB	0.495
1	O:37:ARG:CA	O:57:GLU:CD	0.495
1	L:149:GLN:N	O:131:LEU:CD2	0.495
1	P:127:ILE:HD13	P:131:LEU:CD1	0.495
1	A:150:ARG:NH1	E:149:GLN:OE1	0.495
1	A:413:LEU:HD21	A:466:HIS:CD2	0.494
1	F:230:ASP:HB2	F:254:ASN:HB2	0.494
1	H:230:ASP:HB2	H:254:ASN:HB2	0.494
1	I:13:LEU:HD23	I:48:LYS:HA	0.494
1	K:64:LYS:HD3	K:110:ILE:HG12	0.494
1	K:75:PHE:CZ	K:99:VAL:HG11	0.494
1	L:216:TYR:HB2	L:219:ARG:HD3	0.494
1	L:262:SER:O	L:266:LYS:HG3	0.494
1	L:149:GLN:OE1	O:133:LEU:HG	0.494
1	E:91:ASN:N	F:357:LYS:HZ2	0.494

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:383:ARG:HD2	A:397:SER:OG	0.493
1	B:44:ILE:H	B:1:VAL:HA	0.493
1	C:254:GLU:HA	C:254:GLU:OE1	0.493
1	G:230:ASP:HB2	G:254:ASN:HB2	0.493
1	G:470:ASN:HD21	G:472:LYS:HB2	0.493
1	I:15:SER:CB	I:46:TRP:CD2	0.493
1	L:33:PHE:CD2	L:49:LEU:HD21	0.493
1	O:209:ILE:O	P:261:LYS:NZ	0.493
1	A:303:ASP:OD2	A:307:TYR:OH	0.493
1	E:230:ASP:HB2	E:254:ASN:HB2	0.492
1	I:107:PHE:CD1	I:107:PHE:N	0.492
1	J:13:LEU:HD23	J:48:LYS:HA	0.492
1	J:64:LYS:HD3	J:110:ILE:HG12	0.492
1	L:15:SER:CB	L:46:TRP:CD2	0.492
1	M:12:PHE:HD1	M:52:GLU:HA	0.492
1	N:84:VAL:O	N:84:VAL:HG23	0.492
1	L:98:GLU:OE2	N:102:LEU:HD22	0.492
1	O:84:VAL:O	O:84:VAL:HG23	0.492
1	P:61:PRO:HG3	P:115:GLU:HG3	0.492
1	J:55:VAL:CB	J:55:VAL:N	0.492
1	A:203:LYS:HB2	A:332:LYS:HD3	0.491
1	I:64:LYS:HD3	I:110:ILE:HG12	0.491
1	I:148:ILE:HD13	N:46:TRP:CE2	0.491

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:98:GLU:HG2	P:103:TYR:N	0.491
1	K:13:LEU:HD23	K:48:LYS:HA	0.491
1	K:142:TYR:CB	P:139:ASN:HA	0.491
1	K:142:TYR:CE1	K:160:CYS:HB3	0.491
1	L:64:LYS:HD3	L:110:ILE:HG12	0.491
1	M:3:LEU:HB2	M:119:PHE:CD1	0.491
1	L:255:LYS:CE	O:145:LEU:HD11	0.491
1	A:299:LYS:NZ	A:303:ASP:O	0.491
1	A:225:PHE:HB3	I:215:MET:HE1	0.490
1	C:315:MET:HA	C:315:MET:HE2	0.490
1	G:165:ASP:HB3	G:198:TRP:HB3	0.490
1	G:285:VAL:HA	G:420:LYS:O	0.490
1	I:69:TYR:HE2	I:103:TYR:HB3	0.490
1	J:124:ILE:HD12	J:151:HIS:CG	0.490
1	K:183:PHE:HA	K:279:LEU:HD21	0.490
1	L:39:THR:HA	L:58:LYS:HZ2	0.490
1	K:142:TYR:H	P:139:ASN:HD22	0.490
1	M:32:LEU:O	M:116:LYS:NZ	0.490
1	C:392:LYS:HA	C:392:LYS:HE2	0.489
1	D:312:ARG:HG2	D:312:ARG:HH11	0.489
1	E:165:ASP:HB3	E:198:TRP:HB3	0.489
1	G:444:VAL:HG21	G:473:TYR:HA	0.489
1	J:29:ASP:CG	J:59:GLN:CG	0.489

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:151:HIS:CE1	M:135:SER:HB2	0.489
1	K:212:LEU:HB2	K:222:LYS:NZ	0.489
1	L:1:MET:CG	L:119:PHE:CA	0.489
1	L:7:LYS:O	L:127:ILE:HD12	0.489
1	O:69:TYR:CD2	O:85:ILE:CG1	0.489
1	P:1:MET:CG	P:119:PHE:CB	0.489
1	K:255:LYS:NZ	P:145:LEU:CD1	0.489
1	G:101:TYR:N	G:355:GLU:OE2	0.489
1	E:285:VAL:HA	E:420:LYS:O	0.488
1	E:444:VAL:HG21	E:473:TYR:HA	0.488
1	F:484:LEU:HB2	F:486:ILE:HG12	0.488
1	H:484:LEU:HB2	H:486:ILE:HG12	0.488
1	I:7:LYS:O	I:127:ILE:HD12	0.488
1	I:211:ASP:HB2	I:214:ALA:HB2	0.488
1	K:12:PHE:CZ	K:121:MET:HE3	0.488
1	M:61:PRO:HG3	M:115:GLU:HG3	0.488
1	B:331:ASP:N	B:331:ASP:OD1	0.488
1	F:101:TYR:N	F:355:GLU:OE2	0.488
1	O:32:LEU:HD23	O:57:GLU:OE1	0.488
1	J:15:SER:CB	J:46:TRP:CD2	0.487
1	K:5:GLY:HA3	K:14:VAL:HA	0.487
1	M:2:LYS:N	M:119:PHE:HA	0.487
1	M:155:LEU:HD12	M:255:LYS:CA	0.487

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:154:LEU:HD21	N:256:ASP:CA	0.487
1	H:101:TYR:N	H:355:GLU:OE2	0.487
1	O:150:THR:N	O:160:CYS:SG	0.487
1	C:44:ILE:HG22	C:38:PHE:HB2	0.486
1	D:212:ASP:HB3	D:215:LYS:HB3	0.486
1	I:75:PHE:CZ	I:99:VAL:HG11	0.486
1	J:12:PHE:CZ	J:121:MET:HE3	0.486
1	K:125:GLU:HB3	K:154:LEU:HD11	0.486
1	L:5:GLY:CA	L:14:VAL:HG23	0.486
1	L:75:PHE:CZ	L:99:VAL:HG11	0.486
1	L:109:GLU:HG2	L:109:GLU:O	0.486
1	D:203:LYS:HB2	D:332:LYS:HD3	0.485
1	D:315:MET:HA	D:315:MET:HE2	0.485
1	E:400:THR:O	E:404:MET:HG2	0.485
1	I:5:GLY:CA	I:14:VAL:HG23	0.485
1	J:15:SER:HB2	J:46:TRP:CD2	0.485
1	L:149:GLN:HB3	O:131:LEU:CB	0.485
1	L:216:TYR:CB	L:219:ARG:HD3	0.485
1	M:60:MET:CE	M:114:ASN:HA	0.485
1	N:6:ILE:HG13	N:124:ILE:CG1	0.485
1	N:2:LYS:CG	N:120:GLU:HB2	0.485
1	O:6:ILE:HG13	O:124:ILE:CG1	0.485
1	B:66:ASN:N	B:66:ASN:OD1	0.485

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:63:LYS:H	K:63:LYS:HD3	0.485
1	D:383:ARG:HD2	D:397:SER:OG	0.484
1	G:400:THR:O	G:404:MET:HG2	0.484
1	I:147:ARG:C	I:147:ARG:HD2	0.484
1	K:11:CYS:SG	K:48:LYS:HE3	0.484
1	K:7:LYS:O	K:127:ILE:HD12	0.484
1	K:98:GLU:CA	M:98:GLU:C	0.484
1	O:1:MET:HG2	O:119:PHE:HA	0.484
1	O:60:MET:CE	O:114:ASN:HA	0.484
1	P:60:MET:CE	P:114:ASN:HA	0.484
1	G:92:ASP:O	H:354:ARG:CG	0.484
1	L:142:TYR:CB	O:138:PHE:O	0.484
1	I:37:ARG:CG	I:57:GLU:CG	0.483
1	I:109:GLU:HG2	I:109:GLU:O	0.483
1	J:7:LYS:O	J:127:ILE:HD12	0.483
1	J:149:GLN:HB3	M:132:LYS:CA	0.483
1	G:3:GLU:OE1	L:205:PRO:HG3	0.483
1	M:84:VAL:O	M:84:VAL:HG23	0.483
1	J:150:THR:OG1	M:134:GLN:HB2	0.483
1	N:33:PHE:CE1	N:53:PRO:N	0.483
1	N:69:TYR:CD2	N:85:ILE:CG1	0.483
1	P:84:VAL:O	P:84:VAL:HG23	0.483
1	J:63:LYS:H	J:63:LYS:HD3	0.483

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:256:ASP:O	L:260:LEU:N	0.483
1	M:69:TYR:HH	M:103:TYR:HD1	0.483
1	F:422:PHE:CD2	F:427:ALA:HB3	0.482
1	H:444:VAL:HG21	H:473:TYR:HA	0.482
1	I:42:TYR:CD1	I:134:GLN:NE2	0.482
1	I:127:ILE:HD11	I:154:LEU:HD11	0.482
1	M:2:LYS:CG	M:120:GLU:HB2	0.482
1	N:5:GLY:CA	N:14:VAL:HG23	0.482
1	I:147:ARG:NE	N:43:LYS:HD2	0.482
1	O:2:LYS:CG	O:120:GLU:HB2	0.482
1	O:155:LEU:CD2	O:255:LYS:HD2	0.482
1	P:69:TYR:CD2	P:85:ILE:CG1	0.482
1	L:142:TYR:H	O:139:ASN:H	0.482
1	E:101:TYR:N	E:355:GLU:OE2	0.482
1	C:383:ARG:HD2	C:397:SER:OG	0.481
1	E:435:VAL:HB	E:460:ALA:HB2	0.481
1	F:444:VAL:HG21	F:473:TYR:HA	0.481
1	G:435:VAL:HB	G:460:ALA:HB2	0.481
1	J:15:SER:N	J:46:TRP:CZ3	0.481
1	K:15:SER:CB	K:46:TRP:CD2	0.481
1	P:154:LEU:CD2	P:255:LYS:CA	0.481
1	I:150:THR:CG2	N:134:GLN:H	0.481
1	K:63:LYS:CD	K:111:PRO:O	0.481

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:128:ASP:N	L:128:ASP:OD1	0.481
1	O:185:ARG:NH1	P:176:LYS:O	0.481
1	A:569:SER:C	L:23:TYR:CD2	0.480
1	E:422:PHE:CD2	E:427:ALA:HB3	0.480
1	F:400:THR:O	F:404:MET:HG2	0.480
1	G:422:PHE:CD2	G:427:ALA:HB3	0.480
1	H:422:PHE:CD2	H:427:ALA:HB3	0.480
1	I:15:SER:N	I:46:TRP:CZ3	0.480
1	I:33:PHE:CD2	I:49:LEU:HD21	0.480
1	L:15:SER:N	L:46:TRP:CZ3	0.480
1	L:55:VAL:CG1	L:116:LYS:HG3	0.480
1	L:60:MET:HA	L:61:PRO:HD3	0.480
1	L:212:LEU:HD21	L:224:GLU:HB2	0.480
1	M:3:LEU:CD2	M:28:LEU:HD21	0.480
1	N:3:LEU:CD2	N:28:LEU:HD21	0.480
1	N:37:ARG:HH11	N:59:GLN:HA	0.480
1	N:60:MET:CE	N:114:ASN:HA	0.480
1	O:5:GLY:CA	O:14:VAL:HG23	0.480
1	O:33:PHE:CE1	O:53:PRO:N	0.480
1	O:147:ARG:CA	O:147:ARG:HE	0.480
1	P:96:TYR:CD2	P:96:TYR:N	0.480
1	H:15:THR:OG1	H:220:HIS:ND1	0.480
1	I:146:ASP:O	I:158:LYS:NZ	0.480

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:149:GLN:NE2	O:132:LYS:O	0.480
1	J:63:LYS:CD	J:111:PRO:O	0.480
1	O:34:ASP:OD1	O:55:VAL:N	0.480
1	C:79:VAL:HG11	C:376:LEU:HD21	0.479
1	F:92:ASP:HB3	F:117:LYS:HE3	0.479
1	F:165:ASP:HB3	F:198:TRP:HB3	0.479
1	I:148:ILE:CD1	N:46:TRP:NE1	0.479
1	J:148:ILE:HB	M:133:LEU:HD11	0.479
1	J:161:TYR:HA	J:253:SER:HA	0.479
1	J:175:ILE:HG22	J:186:ILE:HD11	0.479
1	A:569:SER:O	L:23:TYR:CE1	0.479
1	L:63:LYS:CE	L:112:GLN:HA	0.479
1	O:151:HIS:CB	O:152:PRO:HD2	0.479
1	K:146:ASP:O	P:133:LEU:HD23	0.479
1	F:15:THR:OG1	F:220:HIS:ND1	0.479
1	J:148:ILE:N	M:133:LEU:HD21	0.479
1	N:3:LEU:N	N:120:GLU:H	0.479
1	A:117:ASP:HB3	A:120:LYS:HE2	0.478
1	B:146:VAL:HG13	B:149:ALA:HB3	0.478
1	C:143:ILE:HD11	G:153:SER:OG	0.478
1	E:484:LEU:HB2	E:486:ILE:HG12	0.478
1	H:285:VAL:HA	H:420:LYS:O	0.478
1	I:216:TYR:HB2	I:219:ARG:CD	0.478

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:11:CYS:SG	J:48:LYS:HE3	0.478
1	K:15:SER:N	K:46:TRP:CZ3	0.478
1	M:203:TYR:HD2	M:205:PRO:HD2	0.478
1	O:3:LEU:CD2	O:28:LEU:HD21	0.478
1	O:37:ARG:HH11	O:59:GLN:HA	0.478
1	K:284:CYS:SG	K:285:CYS:N	0.478
1	L:63:LYS:H	L:63:LYS:HD3	0.478
1	O:69:TYR:HH	O:103:TYR:HD1	0.478
1	F:285:VAL:HA	F:420:LYS:O	0.477
1	F:435:VAL:HB	F:460:ALA:HB2	0.477
1	G:484:LEU:HB2	G:486:ILE:HG12	0.477
1	H:92:ASP:HB3	H:117:LYS:HE3	0.477
1	H:165:ASP:HB3	H:198:TRP:HB3	0.477
1	H:275:LYS:HE3	H:493:ILE:HG23	0.477
1	J:1:MET:CG	J:119:PHE:CA	0.477
1	K:57:GLU:CB	K:57:GLU:HA	0.477
1	L:201:GLU:HA	L:230:LYS:HA	0.477
1	M:37:ARG:HH11	M:59:GLN:HA	0.477
1	P:3:LEU:CD2	P:28:LEU:HD21	0.477
1	P:6:ILE:HG13	P:124:ILE:CG1	0.477
1	H:178:LYS:NZ	H:179:ASP:OD1	0.477
1	I:93:ASP:N	I:93:ASP:OD2	0.477
1	B:86:ILE:HD11	D:310:ASP:HB2	0.476

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:520:ILE:O	B:520:ILE:HD12	0.476
1	D:79:VAL:HG11	D:376:LEU:HD21	0.476
1	E:92:ASP:HB3	E:117:LYS:HE3	0.476
1	F:275:LYS:HE3	F:493:ILE:HG23	0.476
1	G:92:ASP:HB3	G:117:LYS:HE3	0.476
1	H:400:THR:O	H:404:MET:HG2	0.476
1	K:68:ARG:HG2	K:68:ARG:O	0.476
1	L:149:GLN:OE1	O:133:LEU:HD23	0.476
1	P:29:ASP:HA	P:58:LYS:HD3	0.476
1	P:147:ARG:CA	P:147:ARG:HE	0.476
1	K:141:ASN:HD22	K:161:TYR:HE2	0.476
1	I:163:SER:O	I:167:SER:OG	0.476
1	J:140:LEU:O	M:138:PHE:HD1	0.476
1	I:55:VAL:CG1	I:116:LYS:HG3	0.475
1	J:69:TYR:CE2	J:103:TYR:HB3	0.475
1	J:70:GLU:HB2	J:106:LYS:HE2	0.475
1	K:69:TYR:CE2	K:103:TYR:HB3	0.475
1	M:6:ILE:HG13	M:124:ILE:CG1	0.475
1	O:264:ILE:HG21	P:209:ILE:HG12	0.475
1	B:525:LYS:O	D:525:LYS:NZ	0.475
1	I:18:ILE:H	I:18:ILE:HG12	0.475
1	O:18:ILE:CD1	O:18:ILE:H	0.475
1	I:70:GLU:HB2	I:106:LYS:HE2	0.474

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:68:ARG:HG2	J:68:ARG:O	0.474
1	K:98:GLU:HA	M:99:VAL:CA	0.474
1	L:145:LEU:HD13	O:131:LEU:HD11	0.474
1	M:69:TYR:CD2	M:85:ILE:CG1	0.474
1	N:14:VAL:HG21	N:119:PHE:HE2	0.474
1	N:49:LEU:HD11	N:56:ILE:HD11	0.474
1	N:174:HIS:CG	N:268:LEU:HD11	0.474
1	P:2:LYS:CG	P:120:GLU:HB2	0.474
1	L:68:ARG:CG	L:68:ARG:NH1	0.474
1	B:278:SER:OG	C:301:ASP:OD1	0.474
1	B:557:TYR:OH	B:622:GLU:OE1	0.474
1	A:262:GLN:HA	A:265:ILE:HG22	0.473
1	G:275:LYS:HE3	G:493:ILE:HG23	0.473
1	J:33:PHE:C	J:35:GLY:N	0.473
1	K:90:ILE:HD13	K:96:TYR:CB	0.473
1	L:68:ARG:HG2	L:68:ARG:O	0.473
1	M:15:SER:CB	M:46:TRP:CD2	0.473
1	M:33:PHE:CE1	M:53:PRO:N	0.473
1	M:127:ILE:HD13	M:131:LEU:CD1	0.473
1	O:33:PHE:CE1	O:53:PRO:CG	0.473
1	O:49:LEU:HD11	O:56:ILE:HD11	0.473
1	O:235:ILE:N	O:235:ILE:HD12	0.473
1	I:63:LYS:H	I:63:LYS:HD3	0.473

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:284:CYS:SG	N:285:CYS:N	0.473
1	A:520:ILE:O	A:520:ILE:HD12	0.472
1	H:435:VAL:HB	H:460:ALA:HB2	0.472
1	I:29:ASP:CG	I:59:GLN:CG	0.472
1	I:68:ARG:HG2	I:68:ARG:O	0.472
1	I:144:LEU:HA	N:139:ASN:CB	0.472
1	J:97:TYR:CE1	P:100:LYS:CD	0.472
1	J:142:TYR:CE1	J:160:CYS:HB3	0.472
1	K:33:PHE:C	K:35:GLY:N	0.472
1	K:131:LEU:HG	K:156:GLU:OE2	0.472
1	K:272:MET:HE2	K:276:ASN:HD22	0.472
1	L:32:LEU:N	L:56:ILE:HD12	0.472
1	L:152:PRO:CB	O:136:HIS:CA	0.472
1	M:96:TYR:CD2	M:96:TYR:N	0.472
1	I:149:GLN:N	N:131:LEU:HD23	0.472
1	O:14:VAL:HG21	O:119:PHE:HE2	0.472
1	O:110:ILE:HG13	O:111:PRO:HD2	0.472
1	O:154:LEU:CD1	O:160:CYS:C	0.472
1	P:49:LEU:HD11	P:56:ILE:HD11	0.472
1	J:142:TYR:H	M:138:PHE:HA	0.472
1	C:331:ASP:N	C:331:ASP:OD1	0.472
1	M:32:LEU:HD23	M:57:GLU:OE1	0.472
1	D:618:ALA:HB3	P:23:TYR:OH	0.472

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:220:ASN:O	B:224:ILE:HG13	0.471
1	C:262:GLN:HA	C:265:ILE:HG22	0.471
1	I:81:THR:HA	I:96:TYR:HE1	0.471
1	J:90:ILE:HD13	J:96:TYR:CB	0.471
1	J:147:ARG:C	M:133:LEU:HD23	0.471
1	K:70:GLU:HB2	K:106:LYS:HE2	0.471
1	L:1:MET:SD	L:3:LEU:HD21	0.471
1	L:81:THR:HA	L:96:TYR:HE1	0.471
1	O:167:SER:O	O:171:ILE:HG13	0.471
1	O:159:PRO:CB	O:253:SER:HA	0.471
1	P:37:ARG:HH11	P:59:GLN:HA	0.471
1	L:18:ILE:H	L:18:ILE:HG12	0.471
1	A:146:VAL:HG13	A:149:ALA:HB3	0.470
1	C:413:LEU:HD21	C:466:HIS:CD2	0.470
1	D:146:VAL:HG13	D:149:ALA:HB3	0.470
1	D:483:ASP:HA	D:559:SER:HB2	0.470
1	E:275:LYS:HE3	E:493:ILE:HG23	0.470
1	G:106:PHE:HZ	G:132:PHE:CG	0.470
1	I:1:MET:SD	I:3:LEU:HD21	0.470
1	I:64:LYS:HZ1	I:109:GLU:HA	0.470
1	J:37:ARG:HD3	J:58:LYS:CA	0.470
1	J:55:VAL:CG1	J:116:LYS:HG3	0.470
1	J:64:LYS:HZ1	J:109:GLU:HA	0.470

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:127:ILE:HD11	J:154:LEU:HG	0.470
1	K:7:LYS:CB	K:125:GLU:O	0.470
1	L:11:CYS:SG	L:48:LYS:HE3	0.470
1	L:64:LYS:HZ1	L:109:GLU:HA	0.470
1	N:252:PHE:HB3	N:260:LEU:HD11	0.470
1	O:32:LEU:HD23	O:57:GLU:CD	0.470
1	P:158:LYS:HE3	P:163:SER:HA	0.470
1	P:166:GLU:O	P:170:ILE:HG12	0.470
1	B:575:MET:HG2	B:584:PRO:HB2	0.469
1	I:14:VAL:HG21	I:119:PHE:CE2	0.469
1	I:37:ARG:HD3	I:58:LYS:CA	0.469
1	I:11:CYS:SG	I:48:LYS:HE3	0.469
1	I:32:LEU:N	I:56:ILE:HD12	0.469
1	J:7:LYS:CB	J:125:GLU:O	0.469
1	J:33:PHE:C	J:35:GLY:H	0.469
1	J:179:ILE:HD12	J:186:ILE:HG13	0.469
1	K:37:ARG:HD3	K:58:LYS:CA	0.469
1	K:162:LEU:HA	K:162:LEU:HD12	0.469
1	L:14:VAL:HG21	L:119:PHE:CE2	0.469
1	L:37:ARG:HD3	L:58:LYS:CA	0.469
1	L:140:LEU:HB2	O:138:PHE:CG	0.469
1	L:145:LEU:CD1	O:131:LEU:HD11	0.469
1	L:241:LYS:HB2	L:241:LYS:NZ	0.469

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:1:MET:SD	M:3:LEU:HD21	0.469
1	I:97:TYR:HE1	O:100:LYS:HB3	0.469
1	P:15:SER:CB	P:46:TRP:CD2	0.469
1	I:33:PHE:C	I:35:GLY:N	0.468
1	I:59:GLN:CD	I:59:GLN:N	0.468
1	J:11:CYS:HB2	J:49:LEU:O	0.468
1	K:33:PHE:C	K:35:GLY:H	0.468
1	K:72:LYS:HB2	K:103:TYR:HA	0.468
1	K:149:GLN:HB2	P:132:LYS:CA	0.468
1	L:70:GLU:HB2	L:106:LYS:HE2	0.468
1	L:115:GLU:CD	L:115:GLU:N	0.468
1	J:143:ASN:O	M:139:ASN:CA	0.468
1	N:1:MET:SD	N:3:LEU:HD21	0.468
1	N:151:HIS:CB	N:152:PRO:HD2	0.468
1	O:1:MET:SD	O:3:LEU:HD21	0.468
1	P:33:PHE:CE1	P:53:PRO:CG	0.468
1	P:21:LYS:H	P:21:LYS:HG3	0.468
1	N:69:TYR:HH	N:103:TYR:HD1	0.468
1	A:107:GLY:HA2	A:175:ILE:HD12	0.467
1	A:495:VAL:HA	A:517:THR:HA	0.467
1	B:79:VAL:HG11	B:376:LEU:HD21	0.467
1	B:212:ASP:HB3	B:215:LYS:HB3	0.467
1	D:520:ILE:O	D:520:ILE:HD12	0.467

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	E:106:PHE:HZ	E:132:PHE:CG	0.467
1	I:11:CYS:HB2	I:49:LEU:O	0.467
1	J:216:TYR:HB2	J:219:ARG:HG2	0.467
1	K:55:VAL:CG1	K:116:LYS:HG3	0.467
1	K:58:LYS:HA	K:58:LYS:HD3	0.467
1	K:212:LEU:HB2	K:222:LYS:HZ3	0.467
1	L:33:PHE:C	L:35:GLY:N	0.467
1	L:69:TYR:CE2	L:103:TYR:HB3	0.467
1	L:72:LYS:HB2	L:103:TYR:HA	0.467
1	L:130:GLU:O	L:132:LYS:HG2	0.467
1	N:1:MET:HG2	N:119:PHE:HA	0.467
1	O:265:LYS:HB2	O:265:LYS:HE2	0.467
1	O:95:GLU:CD	O:95:GLU:H	0.467
1	D:107:GLY:HA2	D:175:ILE:HD12	0.466
1	D:570:ALA:CB	K:23:TYR:OH	0.466
1	I:69:TYR:CE2	I:103:TYR:HB3	0.466
1	J:148:ILE:CD1	M:46:TRP:HE1	0.466
1	K:11:CYS:HB2	K:49:LEU:O	0.466
1	K:81:THR:HA	K:96:TYR:HE1	0.466
1	L:11:CYS:HB2	L:49:LEU:O	0.466
1	L:184:ALA:HA	L:199:VAL:HG23	0.466
1	M:1:MET:HG2	M:119:PHE:HA	0.466
1	M:27:GLN:C	M:29:ASP:H	0.466

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:185:ARG:HH12	N:176:LYS:C	0.466
1	O:80:LEU:CD2	O:80:LEU:H	0.466
1	C:50:GLN:HA	C:131:SER:HB2	0.465
1	C:203:LYS:HB2	C:332:LYS:HD3	0.465
1	I:72:LYS:HB2	I:103:TYR:HA	0.465
1	I:174:HIS:CG	I:268:LEU:HD13	0.465
1	I:282:CYS:HB3	M:285:CYS:HB3	0.465
1	J:1:MET:SD	J:3:LEU:HD21	0.465
1	J:14:VAL:HG21	J:119:PHE:CE2	0.465
1	J:59:GLN:CD	J:59:GLN:N	0.465
1	J:72:LYS:HB2	J:103:TYR:HA	0.465
1	J:81:THR:HA	J:96:TYR:HE1	0.465
1	K:14:VAL:HG21	K:119:PHE:CE2	0.465
1	L:59:GLN:CD	L:59:GLN:N	0.465
1	M:155:LEU:HA	M:255:LYS:NZ	0.465
1	N:33:PHE:C	N:35:GLY:H	0.465
1	P:27:GLN:C	P:29:ASP:H	0.465
1	K:143:ASN:O	P:139:ASN:HA	0.465
1	C:383:ARG:NH1	C:397:SER:OG	0.465
1	I:55:VAL:HB	I:116:LYS:NZ	0.464
1	I:115:GLU:CD	I:115:GLU:N	0.464
1	J:32:LEU:N	J:56:ILE:HD12	0.464
1	J:98:GLU:HG3	P:101:GLY:N	0.464

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:163:SER:HB3	J:166:GLU:HB3	0.464
1	L:2:LYS:C	L:120:GLU:N	0.464
1	L:55:VAL:HB	L:116:LYS:NZ	0.464
1	L:29:ASP:CG	L:59:GLN:CG	0.464
1	M:49:LEU:HD11	M:56:ILE:HD11	0.464
1	M:147:ARG:CA	M:147:ARG:HE	0.464
1	M:215:MET:C	N:149:GLN:HE22	0.464
1	M:264:ILE:HD11	N:209:ILE:CG2	0.464
1	N:209:ILE:HD12	N:210:VAL:N	0.464
1	O:200:LEU:HD11	O:233:VAL:HG12	0.464
1	P:1:MET:SD	P:3:LEU:HD21	0.464
1	J:98:GLU:C	P:99:VAL:HG22	0.464
1	A:383:ARG:NH1	A:397:SER:OG	0.464
1	B:355:LYS:HG3	B:359:GLU:HG3	0.463
1	C:101:LYS:HB3	C:101:LYS:HE2	0.463
1	C:483:ASP:HA	C:559:SER:HB2	0.463
1	G:455:VAL:O	G:459:ARG:HG2	0.463
1	I:2:LYS:C	I:120:GLU:N	0.463
1	J:32:LEU:HD23	J:57:GLU:CG	0.463
1	K:1:MET:SD	K:3:LEU:HD21	0.463
1	L:58:LYS:HA	L:58:LYS:HD3	0.463
1	J:152:PRO:CA	M:136:HIS:CG	0.463
1	O:27:GLN:C	O:29:ASP:H	0.463

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:68:ARG:CG	I:68:ARG:NH1	0.463
1	L:147:ARG:NE	O:43:LYS:HZ3	0.463
1	O:2:LYS:C	O:120:GLU:N	0.463
1	K:189:ASP:N	K:189:ASP:OD2	0.463
1	A:578:ILE:HD11	A:599:LEU:HD12	0.462
1	B:238:LEU:HD13	C:255:MET:HE1	0.462
1	C:495:VAL:HA	C:517:THR:HA	0.462
1	F:106:PHE:HZ	F:132:PHE:CG	0.462
1	J:39:THR:HA	J:58:LYS:HZ2	0.462
1	J:145:LEU:CD2	M:6:ILE:HG21	0.462
1	M:37:ARG:HG2	M:58:LYS:H	0.462
1	N:1:MET:CE	N:119:PHE:CB	0.462
1	N:159:PRO:CG	N:161:TYR:CD2	0.462
1	J:151:HIS:HB3	M:134:GLN:OE1	0.462
1	B:238:LEU:HD23	K:214:ALA:HB3	0.461
1	B:255:MET:HB3	B:255:MET:HE2	0.461
1	J:58:LYS:HA	J:58:LYS:HD3	0.461
1	K:32:LEU:N	K:56:ILE:HD12	0.461
1	K:1:MET:CG	K:119:PHE:CA	0.461
1	K:216:TYR:HB2	K:219:ARG:CD	0.461
1	N:110:ILE:HG13	N:111:PRO:HD2	0.461
1	O:15:SER:CB	O:46:TRP:CD2	0.461
1	P:32:LEU:HD23	P:57:GLU:CD	0.461

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:448:GLU:N	A:448:GLU:OE1	0.461
1	K:146:ASP:O	K:149:GLN:NE2	0.461
1	E:438:THR:OG1	E:441:ASP:OD2	0.461
1	G:438:THR:OG1	G:441:ASP:OD2	0.461
1	E:455:VAL:O	E:459:ARG:HG2	0.460
1	I:90:ILE:HD13	I:96:TYR:CB	0.460
1	I:142:TYR:CD2	N:138:PHE:C	0.460
1	J:57:GLU:CB	J:57:GLU:HA	0.460
1	K:32:LEU:HD23	K:57:GLU:CG	0.460
1	K:59:GLN:CD	K:59:GLN:N	0.460
1	N:141:ASN:C	N:141:ASN:ND2	0.460
1	N:155:LEU:HD12	N:255:LYS:HD3	0.460
1	O:33:PHE:C	O:35:GLY:H	0.460
1	O:37:ARG:HG2	O:58:LYS:H	0.460
1	P:272:MET:O	P:275:ILE:HG13	0.460
1	G:119:GLN:O	H:119:GLN:O	0.460
1	H:106:PHE:HZ	H:132:PHE:CG	0.459
1	I:7:LYS:CB	I:125:GLU:O	0.459
1	I:98:GLU:HA	O:98:GLU:O	0.459
1	J:152:PRO:HA	M:136:HIS:ND1	0.459
1	K:97:TYR:C	K:97:TYR:CD2	0.459
1	L:6:ILE:HD11	L:153:MET:HG2	0.459
1	L:257:VAL:HG12	L:261:LYS:NZ	0.459

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	P:37:ARG:HG2	P:58:LYS:H	0.459
1	P:70:GLU:HG2	P:106:LYS:HD2	0.459
1	B:102:GLU:OE1	B:105:LYS:NZ	0.459
1	D:254:GLU:HA	D:254:GLU:OE1	0.458
1	L:183:PHE:CZ	L:278:PRO:HB3	0.458
1	M:72:LYS:HB3	M:75:PHE:CE1	0.458
1	P:157:THR:N	P:161:TYR:CD2	0.458
1	D:225:PHE:HD2	D:291:PHE:HE1	0.458
1	C:570:ALA:CB	I:23:TYR:OH	0.457
1	J:39:THR:HA	J:58:LYS:HZ1	0.457
1	L:90:ILE:HD13	L:96:TYR:CB	0.457
1	L:146:ASP:HB2	L:158:LYS:NZ	0.457
1	N:27:GLN:C	N:29:ASP:H	0.457
1	L:151:HIS:HB2	O:134:GLN:HG2	0.457
1	P:72:LYS:HB3	P:75:PHE:CE1	0.457
1	B:225:PHE:HD2	B:291:PHE:HE1	0.457
1	A:58:ASN:ND2	A:71:ASN:OD1	0.457
1	M:68:ARG:CG	M:68:ARG:HH11	0.457
1	O:185:ARG:HH12	P:176:LYS:C	0.457
1	P:68:ARG:CG	P:68:ARG:HH11	0.457
1	I:63:LYS:CD	I:111:PRO:O	0.457
1	O:256:ASP:C	O:256:ASP:OD2	0.457
1	K:92:GLU:C	M:100:LYS:NZ	0.456

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:285:CYS:HB2	O:282:CYS:O	0.456
1	L:7:LYS:CB	L:125:GLU:O	0.456
1	L:147:ARG:HA	L:155:LEU:HD21	0.456
1	M:33:PHE:C	M:35:GLY:H	0.456
1	M:206:HIS:CE1	N:265:LYS:HG3	0.456
1	N:37:ARG:HG2	N:58:LYS:H	0.456
1	M:154:LEU:CG	M:160:CYS:N	0.456
1	L:63:LYS:CD	L:111:PRO:O	0.456
1	A:101:LYS:HB3	A:101:LYS:HE2	0.455
1	A:255:MET:HB3	A:255:MET:HE2	0.455
1	I:6:ILE:HG13	I:124:ILE:HD11	0.455
1	K:1:MET:HE2	K:118:GLU:C	0.455
1	N:15:SER:CB	N:46:TRP:CD2	0.455
1	N:252:PHE:CG	N:264:ILE:HD11	0.455
1	A:47:PHE:O	A:34:ILE:HA	0.454
1	A:79:VAL:HG11	A:376:LEU:HD21	0.454
1	J:55:VAL:HB	J:116:LYS:NZ	0.454
1	O:210:VAL:HA	P:261:LYS:HZ1	0.454
1	N:95:GLU:CD	N:95:GLU:H	0.454
1	I:145:LEU:HD22	N:125:GLU:OE2	0.454
1	H:455:VAL:O	H:459:ARG:HG2	0.453
1	I:72:LYS:HD2	I:102:LEU:CD1	0.453
1	I:125:GLU:HB3	I:154:LEU:CD1	0.453

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:144:LEU:HA	P:139:ASN:HB2	0.453
1	L:151:HIS:O	O:136:HIS:CD2	0.453
1	O:158:LYS:HD3	O:162:LEU:HA	0.453
1	J:7:LYS:CA	J:125:GLU:O	0.453
1	K:7:LYS:CA	K:125:GLU:O	0.453
1	N:93:ASP:N	N:93:ASP:OD2	0.453
1	O:93:ASP:N	O:93:ASP:OD2	0.453
1	P:93:ASP:N	P:93:ASP:OD2	0.453
1	C:130:LEU:HD21	C:142:LEU:HD23	0.452
1	A:269:TYR:OH	D:312:ARG:HD3	0.452
1	I:32:LEU:HD23	I:57:GLU:CG	0.452
1	J:1:MET:HE2	J:118:GLU:C	0.452
1	J:6:ILE:HG13	J:124:ILE:HD11	0.452
1	K:55:VAL:HB	K:116:LYS:NZ	0.452
1	K:155:LEU:HD13	P:138:PHE:N	0.452
1	L:1:MET:CG	L:119:PHE:HA	0.452
1	O:150:THR:CB	O:160:CYS:CB	0.452
1	M:155:LEU:CA	M:161:TYR:OH	0.452
1	A:574:SER:O	A:578:ILE:HG23	0.451
1	D:413:LEU:HD21	D:466:HIS:CD2	0.451
1	A:152:SER:OG	E:145:LEU:HB3	0.451
1	F:455:VAL:O	F:459:ARG:HG2	0.451
1	J:76:GLN:HA	J:76:GLN:HE21	0.451

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:204:LYS:HA	M:204:LYS:HD3	0.451
1	O:72:LYS:HB3	O:75:PHE:CE1	0.451
1	P:3:LEU:CB	P:120:GLU:O	0.451
1	P:5:GLY:CA	P:14:VAL:HG23	0.451
1	D:66:ASN:OD1	D:90:ASN:ND2	0.451
1	F:86:LYS:NZ	F:93:TYR:O	0.451
1	F:438:THR:OG1	F:441:ASP:OD2	0.451
1	H:86:LYS:NZ	H:93:TYR:O	0.451
1	I:60:MET:HA	I:61:PRO:HD3	0.450
1	I:146:ASP:CG	I:158:LYS:HZ1	0.450
1	J:146:ASP:O	J:150:THR:HG22	0.450
1	K:6:ILE:HD13	K:153:MET:HB3	0.450
1	M:32:LEU:HD23	M:57:GLU:CD	0.450
1	O:176:LYS:C	P:185:ARG:HH12	0.450
1	N:158:LYS:NZ	N:163:SER:CA	0.450
1	A:55:LYS:O	A:129:ASP:N	0.450
1	C:150:ARG:NH2	C:155:ALA:O	0.450
1	H:438:THR:OG1	H:441:ASP:OD2	0.450
1	M:93:ASP:N	M:93:ASP:OD2	0.450
1	B:507:LEU:HA	B:507:LEU:HD23	0.449
1	C:17:THR:OG1	C:14:LYS:HB2	0.449
1	C:223:TYR:CE2	C:328:LYS:HD3	0.449
1	E:279:ASN:ND2	E:281:GLU:HB2	0.449

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:5:GLY:CA	J:14:VAL:HG23	0.449
1	L:32:LEU:HD23	L:57:GLU:CG	0.449
1	N:36:LYS:C	N:57:GLU:CG	0.449
1	B:481:LYS:NZ	B:559:SER:OG	0.449
1	L:147:ARG:O	O:133:LEU:CB	0.449
1	G:279:ASN:ND2	G:281:GLU:HB2	0.448
1	I:1:MET:CG	I:119:PHE:HA	0.448
1	K:6:ILE:HG13	K:124:ILE:HD11	0.448
1	K:76:GLN:HA	K:76:GLN:HE21	0.448
1	L:72:LYS:HD2	L:102:LEU:CD1	0.448
1	L:142:TYR:CE2	L:155:LEU:HB3	0.448
1	O:37:ARG:HG2	O:58:LYS:N	0.448
1	O:83:LYS:HB2	O:83:LYS:HE3	0.448
1	L:144:LEU:CG	O:140:LEU:HD21	0.448
1	P:80:LEU:CD2	P:80:LEU:H	0.448
1	M:29:ASP:OD2	M:58:LYS:NZ	0.448
1	E:260:ASP:N	E:260:ASP:OD1	0.448
1	G:260:ASP:N	G:260:ASP:OD1	0.448
1	C:107:GLY:HA2	C:175:ILE:HD12	0.447
1	C:146:VAL:HG13	C:149:ALA:HB3	0.447
1	I:33:PHE:C	I:35:GLY:H	0.447
1	J:115:GLU:CD	J:115:GLU:N	0.447
1	J:119:PHE:CD1	J:119:PHE:O	0.447

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:5:GLY:CA	M:14:VAL:HG23	0.447
1	N:37:ARG:HG2	N:58:LYS:N	0.447
1	P:33:PHE:C	P:35:GLY:H	0.447
1	N:159:PRO:HA	N:254:GLY:O	0.447
1	C:520:ILE:O	C:520:ILE:HD12	0.446
1	I:279:LEU:HB3	I:290:VAL:CG2	0.446
1	J:72:LYS:HD2	J:102:LEU:CD1	0.446
1	K:119:PHE:CD1	K:119:PHE:O	0.446
1	L:6:ILE:HG13	L:124:ILE:HD11	0.446
1	L:33:PHE:C	L:35:GLY:H	0.446
1	L:143:ASN:HB2	L:146:ASP:CG	0.446
1	M:252:PHE:CD1	M:264:ILE:HG22	0.446
1	N:72:LYS:HB3	N:75:PHE:CE1	0.446
1	N:235:ILE:HD13	N:275:ILE:HG12	0.446
1	O:13:LEU:CD2	O:41:THR:HG21	0.446
1	J:100:LYS:HZ1	P:99:VAL:H	0.446
1	J:105:LEU:CD2	J:105:LEU:H	0.446
1	M:154:LEU:N	M:161:TYR:HH	0.446
1	M:159:PRO:O	M:254:GLY:N	0.446
1	I:64:LYS:HD3	I:110:ILE:CG1	0.445
1	I:155:LEU:HD12	N:136:HIS:HA	0.445
1	K:6:ILE:HD13	K:153:MET:CB	0.445
1	K:127:ILE:HD11	K:154:LEU:CD1	0.445

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:216:TYR:HB2	K:219:ARG:HD3	0.445
1	L:64:LYS:HD3	L:110:ILE:CG1	0.445
1	L:220:LYS:HD3	L:221:PRO:HD2	0.445
1	M:37:ARG:HG2	M:58:LYS:N	0.445
1	N:13:LEU:CD2	N:41:THR:HG21	0.445
1	N:58:LYS:HD2	N:59:GLN:CG	0.445
1	N:80:LEU:CD2	N:80:LEU:H	0.445
1	N:83:LYS:HB2	N:83:LYS:HE3	0.445
1	O:119:PHE:CD1	O:119:PHE:O	0.445
1	O:147:ARG:NH1	O:148:ILE:HG22	0.445
1	J:152:PRO:O	M:136:HIS:CG	0.445
1	L:180:ASN:ND2	L:276:ASN:OD1	0.445
1	K:284:CYS:SG	O:284:CYS:N	0.445
1	A:282:LYS:HG3	D:306:TYR:HE1	0.444
1	C:83:MET:HB2	C:83:MET:HE2	0.444
1	C:255:MET:O	C:259:LYS:HB2	0.444
1	I:140:LEU:HD11	N:138:PHE:CZ	0.444
1	J:64:LYS:HD3	J:110:ILE:CG1	0.444
1	K:64:LYS:HD3	K:110:ILE:CG1	0.444
1	K:109:GLU:CD	K:109:GLU:N	0.444
1	L:39:THR:HA	L:58:LYS:HZ1	0.444
1	M:147:ARG:NH1	M:148:ILE:HG22	0.444
1	M:150:THR:C	M:160:CYS:HA	0.444

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:158:LYS:HD3	M:162:LEU:HA	0.444
1	O:36:LYS:C	O:57:GLU:CG	0.444
1	P:147:ARG:NH1	P:148:ILE:HG22	0.444
1	A:184:ASP:N	A:184:ASP:OD1	0.444
1	C:192:ARG:NH1	D:188:ASP:OD2	0.444
1	C:388:HIS:NE2	C:396:SER:OG	0.444
1	E:15:THR:OG1	E:220:HIS:ND1	0.444
1	G:15:THR:OG1	G:220:HIS:ND1	0.444
1	K:105:LEU:CD2	K:105:LEU:H	0.444
1	O:21:LYS:H	O:21:LYS:HG3	0.444
1	I:211:ASP:OD1	I:223:LEU:HD13	0.443
1	K:98:GLU:HA	M:99:VAL:HA	0.443
1	K:179:ILE:HG22	K:275:ILE:HG21	0.443
1	K:278:PRO:HB2	K:293:ASN:H	0.443
1	L:97:TYR:CD2	L:97:TYR:O	0.443
1	N:147:ARG:NH1	N:148:ILE:HG22	0.443
1	P:14:VAL:HG21	P:119:PHE:HE2	0.443
1	P:37:ARG:HG2	P:58:LYS:N	0.443
1	P:144:LEU:HD23	P:145:LEU:N	0.443
1	P:98:GLU:H	P:98:GLU:HG3	0.443
1	D:481:LYS:NZ	D:559:SER:OG	0.443
1	M:158:LYS:O	M:161:TYR:CD2	0.443
1	B:285:MET:HE3	C:285:MET:HE3	0.442

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:520:ILE:HG22	B:532:ARG:HG2	0.442
1	H:257:SER:HA	H:466:VAL:O	0.442
1	I:31:LEU:HD23	I:32:LEU:H	0.442
1	J:55:VAL:CG1	J:118:GLU:HG2	0.442
1	J:60:MET:HA	J:61:PRO:HD3	0.442
1	J:71:LEU:CD1	J:75:PHE:HB3	0.442
1	L:31:LEU:HD23	L:32:LEU:H	0.442
1	M:166:GLU:O	M:170:ILE:HG13	0.442
1	N:3:LEU:HD22	N:28:LEU:HD21	0.442
1	N:63:LYS:HD3	N:113:GLN:N	0.442
1	N:119:PHE:CD1	N:119:PHE:O	0.442
1	O:33:PHE:CD1	O:53:PRO:CB	0.442
1	O:177:ALA:HA	P:185:ARG:HH22	0.442
1	P:63:LYS:HD3	P:113:GLN:N	0.442
1	P:154:LEU:HB2	P:160:CYS:HB2	0.442
1	P:154:LEU:HD21	P:256:ASP:N	0.442
1	P:193:CYS:HB2	P:246:TYR:CE2	0.442
1	P:29:ASP:OD2	P:58:LYS:NZ	0.442
1	L:7:LYS:CA	L:125:GLU:O	0.442
1	I:5:GLY:HA3	I:14:VAL:CA	0.441
1	I:14:VAL:HG21	I:121:MET:SD	0.441
1	I:70:GLU:CB	I:106:LYS:HE2	0.441
1	I:97:TYR:CD2	I:97:TYR:O	0.441

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:62:ALA:HA	J:112:GLN:NE2	0.441
1	K:70:GLU:CB	K:106:LYS:HE2	0.441
1	K:72:LYS:HD2	K:102:LEU:CD1	0.441
1	K:115:GLU:CD	K:115:GLU:N	0.441
1	L:68:ARG:HG3	L:84:VAL:HB	0.441
1	N:200:LEU:HD11	N:233:VAL:HG12	0.441
1	O:58:LYS:HD2	O:59:GLN:CG	0.441
1	O:144:LEU:HD23	O:145:LEU:N	0.441
1	P:58:LYS:HD2	P:59:GLN:CG	0.441
1	P:119:PHE:CD1	P:119:PHE:O	0.441
1	E:430:LEU:H	E:430:LEU:HD23	0.440
1	F:257:SER:HA	F:466:VAL:O	0.440
1	I:68:ARG:HG3	I:84:VAL:HB	0.440
1	I:119:PHE:CD1	I:119:PHE:O	0.440
1	J:199:VAL:HG22	J:232:GLU:HG2	0.440
1	K:5:GLY:CA	K:14:VAL:HG23	0.440
1	K:71:LEU:CD1	K:75:PHE:HB3	0.440
1	L:70:GLU:CB	L:106:LYS:HE2	0.440
1	L:155:LEU:HD12	O:134:GLN:O	0.440
1	M:3:LEU:HD22	M:28:LEU:CG	0.440
1	M:63:LYS:HD3	M:113:GLN:N	0.440
1	M:144:LEU:HD23	M:145:LEU:N	0.440
1	M:159:PRO:CG	M:161:TYR:CD2	0.440

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:30:GLU:HA	O:60:MET:CA	0.440
1	O:149:GLN:HB3	O:160:CYS:SG	0.440
1	A:230:GLY:O	I:226:ARG:NH1	0.440
1	N:283:LYS:HB3	N:284:CYS:H	0.440
1	A:14:LYS:HA	A:14:LYS:HD3	0.439
1	C:177:LEU:HD12	C:196:ASN:HD21	0.439
1	E:439:ALA:HB3	E:469:ASP:H	0.439
1	G:430:LEU:H	G:430:LEU:HD23	0.439
1	G:439:ALA:HB3	G:469:ASP:H	0.439
1	I:39:THR:HA	I:58:LYS:HZ1	0.439
1	J:98:GLU:HA	P:99:VAL:CG1	0.439
1	J:72:LYS:CD	J:102:LEU:HB3	0.439
1	K:148:ILE:CD1	P:46:TRP:CZ2	0.439
1	L:14:VAL:HG21	L:121:MET:SD	0.439
1	M:119:PHE:CD1	M:119:PHE:O	0.439
1	N:182:LYS:HE2	N:203:TYR:HA	0.439
1	P:2:LYS:CB	P:120:GLU:CB	0.439
1	P:13:LEU:CD2	P:41:THR:HG21	0.439
1	B:177:LEU:HD12	B:196:ASN:HD21	0.438
1	B:238:LEU:HD21	K:215:MET:HG3	0.438
1	D:483:ASP:HB2	D:562:ASP:HA	0.438
1	J:70:GLU:CB	J:106:LYS:HE2	0.438
1	K:62:ALA:HA	K:112:GLN:NE2	0.438

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:72:LYS:CD	K:102:LEU:HB3	0.438
1	L:155:LEU:HD12	O:136:HIS:N	0.438
1	M:3:LEU:CB	M:120:GLU:O	0.438
1	M:13:LEU:CD2	M:41:THR:HG21	0.438
1	N:33:PHE:CE1	N:53:PRO:CD	0.438
1	N:11:CYS:HB3	N:48:LYS:HE3	0.438
1	O:3:LEU:HD22	O:28:LEU:HD21	0.438
1	O:11:CYS:HB3	O:48:LYS:HE3	0.438
1	O:63:LYS:HD3	O:113:GLN:N	0.438
1	I:98:GLU:CG	O:99:VAL:C	0.438
1	P:3:LEU:HD22	P:28:LEU:CG	0.438
1	L:84:VAL:O	L:84:VAL:HG22	0.438
1	N:95:GLU:N	N:95:GLU:OE2	0.438
1	I:76:GLN:HA	I:76:GLN:HE21	0.437
1	I:70:GLU:CG	I:106:LYS:HE2	0.437
1	I:140:LEU:CD1	N:138:PHE:CE2	0.437
1	J:95:GLU:HA	P:102:LEU:CD2	0.437
1	J:288:ARG:HB3	N:231:ARG:NH2	0.437
1	K:68:ARG:HG3	K:84:VAL:HB	0.437
1	L:76:GLN:HA	L:76:GLN:HE21	0.437
1	L:119:PHE:CD1	L:119:PHE:O	0.437
1	L:282:CYS:SG	L:285:CYS:HB2	0.437
1	N:30:GLU:HA	N:60:MET:CA	0.437

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:144:LEU:HD23	N:145:LEU:N	0.437
1	F:205:ASN:OD1	F:206:PHE:N	0.437
1	L:156:GLU:N	O:136:HIS:NE2	0.437
1	H:260:ASP:N	H:260:ASP:OD1	0.437
1	I:7:LYS:CA	I:125:GLU:O	0.437
1	N:256:ASP:OD2	N:259:ASP:N	0.437
1	E:257:SER:HA	E:466:VAL:O	0.436
1	H:287:LEU:HB2	H:437:ILE:HG22	0.436
1	I:95:GLU:CD	I:95:GLU:N	0.436
1	J:1:MET:CG	J:119:PHE:HA	0.436
1	M:58:LYS:HD2	M:59:GLN:CG	0.436
1	N:33:PHE:CD1	N:53:PRO:CB	0.436
1	O:31:LEU:HD23	O:32:LEU:H	0.436
1	P:199:VAL:HG12	P:201:GLU:HB3	0.436
1	L:290:VAL:H	P:288:ARG:C	0.436
1	H:205:ASN:OD1	H:206:PHE:N	0.436
1	N:29:ASP:OD2	N:58:LYS:NZ	0.436
1	E:1:SER:OG	E:2:ARG:N	0.436
1	F:260:ASP:N	F:260:ASP:OD1	0.436
1	I:84:VAL:O	I:84:VAL:HG22	0.436
1	A:177:LEU:HD12	A:196:ASN:HD21	0.435
1	B:254:GLU:HA	B:254:GLU:OE2	0.435
1	B:282:LYS:HG3	C:306:TYR:CE1	0.435

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:19:GLU:HB2	J:21:LYS:HE3	0.435
1	J:68:ARG:HG3	J:84:VAL:HB	0.435
1	K:19:GLU:HB2	K:21:LYS:HE3	0.435
1	K:186:ILE:HD11	K:189:ASP:HB3	0.435
1	K:282:CYS:HB3	K:285:CYS:H	0.435
1	L:70:GLU:CG	L:106:LYS:HE2	0.435
1	L:6:ILE:HD11	L:153:MET:HB2	0.435
1	N:31:LEU:HD23	N:32:LEU:H	0.435
1	P:11:CYS:HB3	P:48:LYS:HE3	0.435
1	J:95:GLU:C	P:102:LEU:HD21	0.435
1	P:155:LEU:HA	P:255:LYS:HD3	0.435
1	K:97:TYR:CD2	K:97:TYR:O	0.435
1	E:366:LEU:HG	E:379:VAL:HG11	0.434
1	G:257:SER:HA	G:466:VAL:O	0.434
1	H:366:LEU:HG	H:379:VAL:HG11	0.434
1	I:125:GLU:CB	I:154:LEU:HD11	0.434
1	I:155:LEU:HD23	I:158:LYS:HD3	0.434
1	J:6:ILE:HG13	J:124:ILE:CD1	0.434
1	J:98:GLU:CB	P:102:LEU:HG	0.434
1	J:144:LEU:HD22	M:140:LEU:HD23	0.434
1	J:144:LEU:HD23	J:145:LEU:H	0.434
1	K:6:ILE:HG13	K:124:ILE:CD1	0.434
1	K:55:VAL:CG1	K:118:GLU:HG2	0.434

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:174:HIS:CE1	L:268:LEU:HB3	0.434
1	M:30:GLU:HA	M:60:MET:CA	0.434
1	M:31:LEU:HD23	M:32:LEU:H	0.434
1	M:110:ILE:HG13	M:111:PRO:HD2	0.434
1	O:3:LEU:HD22	O:28:LEU:CG	0.434
1	O:182:LYS:HE3	O:183:PHE:CE1	0.434
1	P:31:LEU:HD23	P:32:LEU:H	0.434
1	P:83:LYS:HB2	P:83:LYS:HE3	0.434
1	B:73:ASN:OD1	B:37:ARG:NH2	0.434
1	E:391:LEU:HA	E:391:LEU:HD12	0.433
1	F:287:LEU:HB2	F:437:ILE:HG22	0.433
1	F:430:LEU:H	F:430:LEU:HD23	0.433
1	G:287:LEU:HD21	G:422:PHE:CZ	0.433
1	G:366:LEU:HG	G:379:VAL:HG11	0.433
1	I:32:LEU:CG	I:57:GLU:HB2	0.433
1	I:55:VAL:CG1	I:118:GLU:HG2	0.433
1	J:5:GLY:HA3	J:14:VAL:CA	0.433
1	J:278:PRO:HG2	J:292:LEU:HG	0.433
1	L:55:VAL:CG1	L:118:GLU:HG2	0.433
1	M:80:LEU:CD2	M:80:LEU:N	0.433
1	M:83:LYS:HB2	M:83:LYS:HE3	0.433
1	N:158:LYS:HE3	N:163:SER:HA	0.433
1	O:29:ASP:HA	O:58:LYS:HD3	0.433

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:98:GLU:OE1	O:101:GLY:C	0.433
1	P:32:LEU:N	P:116:LYS:CD	0.433
1	N:22:ARG:HB2	N:22:ARG:HE	0.433
1	O:29:ASP:OD2	O:58:LYS:NZ	0.433
1	K:97:TYR:CE1	M:98:GLU:O	0.433
1	O:95:GLU:N	O:95:GLU:OE2	0.433
1	A:273:LYS:HG2	A:275:GLU:HB2	0.432
1	B:332:LYS:HB3	B:332:LYS:HE2	0.432
1	I:100:LYS:HD3	O:98:GLU:HB3	0.432
1	J:85:ILE:N	J:85:ILE:HD13	0.432
1	J:92:GLU:C	P:100:LYS:HE3	0.432
1	J:101:GLY:CA	P:98:GLU:OE2	0.432
1	J:174:HIS:CD2	J:268:LEU:HD23	0.432
1	K:153:MET:HE3	K:153:MET:O	0.432
1	L:32:LEU:CG	L:57:GLU:HB2	0.432
1	N:204:LYS:HG3	N:205:PRO:CD	0.432
1	O:33:PHE:CE1	O:53:PRO:CD	0.432
1	P:3:LEU:HD22	P:28:LEU:HD21	0.432
1	J:98:GLU:CG	P:102:LEU:CD2	0.432
1	F:232:GLN:O	F:236:ASN:ND2	0.432
1	A:215:LYS:HD2	A:215:LYS:O	0.431
1	F:287:LEU:HD21	F:422:PHE:CZ	0.431
1	F:366:LEU:HG	F:379:VAL:HG11	0.431

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:19:GLU:HB2	I:21:LYS:HE3	0.431
1	I:81:THR:HB	I:96:TYR:CD1	0.431
1	J:82:PRO:HD2	J:96:TYR:CE1	0.431
1	K:31:LEU:HD23	K:32:LEU:H	0.431
1	K:29:ASP:CG	K:59:GLN:CG	0.431
1	K:82:PRO:HD2	K:96:TYR:CE1	0.431
1	K:85:ILE:N	K:85:ILE:HD13	0.431
1	L:19:GLU:HB2	L:21:LYS:HE3	0.431
1	L:85:ILE:N	L:85:ILE:HD13	0.431
1	M:215:MET:C	N:149:GLN:NE2	0.431
1	N:3:LEU:HD22	N:28:LEU:CD1	0.431
1	N:3:LEU:HD22	N:28:LEU:CG	0.431
1	N:202:LEU:HA	N:202:LEU:HD12	0.431
1	I:97:TYR:O	O:98:GLU:CA	0.431
1	K:84:VAL:O	K:84:VAL:HG22	0.431
1	N:159:PRO:HB3	N:254:GLY:O	0.431
1	A:327:LYS:HB3	A:327:LYS:HE2	0.430
1	B:66:ASN:HD21	B:86:ILE:HG22	0.430
1	I:62:ALA:HA	I:112:GLN:NE2	0.430
1	I:85:ILE:N	I:85:ILE:HD13	0.430
1	J:14:VAL:HG21	J:121:MET:SD	0.430
1	K:98:GLU:CB	M:102:LEU:HD23	0.430
1	K:70:GLU:CG	K:106:LYS:HE2	0.430

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:148:ILE:HD13	P:46:TRP:CD2	0.430
1	L:62:ALA:HA	L:112:GLN:NE2	0.430
1	M:14:VAL:HG21	M:119:PHE:HE2	0.430
1	J:142:TYR:N	M:138:PHE:CB	0.430
1	N:33:PHE:CE1	N:53:PRO:CG	0.430
1	P:30:GLU:HA	P:60:MET:CA	0.430
1	J:92:GLU:O	P:100:LYS:HE3	0.430
1	P:7:LYS:CB	P:126:GLU:HA	0.430
1	A:482:THR:OG1	A:483:ASP:N	0.430
1	K:136:HIS:ND1	K:138:PHE:O	0.430
1	A:448:GLU:HB2	A:451:LEU:HD22	0.429
1	B:413:LEU:HD21	B:466:HIS:NE2	0.429
1	C:310:ASP:HA	C:313:ARG:HG3	0.429
1	H:430:LEU:H	H:430:LEU:HD23	0.429
1	I:6:ILE:HG13	I:124:ILE:CD1	0.429
1	L:1:MET:HE2	L:118:GLU:CA	0.429
1	L:82:PRO:HD2	L:96:TYR:CE1	0.429
1	L:95:GLU:CD	L:95:GLU:N	0.429
1	L:97:TYR:CE2	N:98:GLU:O	0.429
1	M:11:CYS:HB3	M:48:LYS:HE3	0.429
1	M:16:ASP:CA	M:28:LEU:HD12	0.429
1	M:273:ALA:O	M:277:GLU:HB3	0.429
1	O:1:MET:CG	O:119:PHE:CB	0.429

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	P:3:LEU:HD22	P:28:LEU:CD1	0.429
1	B:184:ASP:N	B:184:ASP:OD1	0.429
1	E:205:ASN:OD1	E:206:PHE:N	0.429
1	N:172:ARG:HH21	N:176:LYS:HZ3	0.429
1	B:47:PHE:HB3	B:35:ARG:HB3	0.428
1	E:287:LEU:HD21	E:422:PHE:CZ	0.428
1	F:439:ALA:HB3	F:469:ASP:H	0.428
1	G:489:ILE:HA	G:489:ILE:HD12	0.428
1	I:82:PRO:HD2	I:96:TYR:CE1	0.428
1	I:146:ASP:C	I:146:ASP:OD2	0.428
1	K:5:GLY:HA3	K:14:VAL:CA	0.428
1	K:60:MET:HA	K:61:PRO:HD3	0.428
1	K:64:LYS:HZ1	K:109:GLU:HA	0.428
1	L:6:ILE:HG13	L:124:ILE:CD1	0.428
1	L:81:THR:HB	L:96:TYR:CD1	0.428
1	L:140:LEU:HB2	O:138:PHE:CD1	0.428
1	I:59:GLN:N	I:59:GLN:OE1	0.428
1	P:33:PHE:O	P:35:GLY:N	0.428
1	H:232:GLN:O	H:236:ASN:ND2	0.428
1	A:490:LYS:HD2	C:579:PHE:O	0.427
1	C:339:GLU:HG3	C:340:GLU:HG2	0.427
1	D:413:LEU:HD21	D:466:HIS:NE2	0.427
1	H:287:LEU:HD21	H:422:PHE:CZ	0.427

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:1:MET:HE2	I:118:GLU:CA	0.427
1	I:71:LEU:CD1	I:75:PHE:HB3	0.427
1	I:155:LEU:HD11	N:136:HIS:CA	0.427
1	J:70:GLU:CG	J:106:LYS:HE2	0.427
1	K:97:TYR:CE2	M:97:TYR:CG	0.427
1	L:71:LEU:CD1	L:75:PHE:HB3	0.427
1	L:145:LEU:HB3	O:125:GLU:OE2	0.427
1	L:241:LYS:HG2	L:242:ALA:N	0.427
1	M:3:LEU:HD22	M:28:LEU:CD1	0.427
1	N:167:SER:O	N:171:ILE:HG13	0.427
1	A:225:PHE:HD2	A:291:PHE:CE1	0.427
1	G:205:ASN:OD1	G:206:PHE:N	0.427
1	H:250:ASN:OD1	H:251:GLU:N	0.427
1	L:59:GLN:N	L:59:GLN:OE1	0.427
1	M:33:PHE:O	M:35:GLY:N	0.427
1	N:21:LYS:H	N:21:LYS:HG3	0.427
1	L:142:TYR:O	O:139:ASN:ND2	0.427
1	J:84:VAL:O	J:84:VAL:HG22	0.427
1	A:36:PHE:CD2	A:23:MET:HG2	0.426
1	A:182:GLU:HB3	A:184:ASP:OD1	0.426
1	B:225:PHE:HB3	K:215:MET:HE1	0.426
1	B:413:LEU:HD21	B:466:HIS:CD2	0.426
1	C:355:LYS:HG3	C:359:GLU:HG3	0.426

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	E:287:LEU:HB2	E:437:ILE:HG22	0.426
1	G:287:LEU:HB2	G:437:ILE:HG22	0.426
1	H:439:ALA:HB3	H:469:ASP:H	0.426
1	J:81:THR:HB	J:96:TYR:CD1	0.426
1	M:3:LEU:HD22	M:28:LEU:HD21	0.426
1	M:181:PRO:HB2	N:177:ALA:O	0.426
1	O:3:LEU:HD22	O:28:LEU:CD1	0.426
1	L:143:ASN:O	O:139:ASN:HB2	0.426
1	P:16:ASP:CA	P:28:LEU:HD12	0.426
1	P:33:PHE:CE1	P:53:PRO:CD	0.426
1	P:261:LYS:HA	P:264:ILE:HG22	0.426
1	L:97:TYR:HE2	N:98:GLU:N	0.426
1	E:250:ASN:OD1	E:251:GLU:N	0.426
1	I:42:TYR:H	I:133:LEU:HD22	0.426
1	J:59:GLN:N	J:59:GLN:OE1	0.426
1	K:59:GLN:N	K:59:GLN:OE1	0.426
1	H:1:SER:OG	H:2:ARG:N	0.426
1	M:69:TYR:HH	M:103:TYR:HB3	0.426
1	A:593:LEU:HD13	C:460:GLY:HA3	0.425
1	F:285:VAL:HG23	F:435:VAL:HG22	0.425
1	G:91:ASN:HB2	H:357:LYS:HD2	0.425
1	J:1:MET:HE2	J:118:GLU:CA	0.425
1	J:31:LEU:HD23	J:32:LEU:H	0.425

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:98:GLU:CB	P:99:VAL:CG1	0.425
1	K:14:VAL:HG21	K:121:MET:SD	0.425
1	K:1:MET:CG	K:119:PHE:HA	0.425
1	K:282:CYS:HB2	K:285:CYS:HB3	0.425
1	O:3:LEU:N	O:120:GLU:CA	0.425
1	P:38:ALA:HB1	P:47:PHE:HB3	0.425
1	F:250:ASN:OD1	F:251:GLU:N	0.425
1	A:481:LYS:NZ	A:559:SER:OG	0.425
1	M:7:LYS:CA	M:125:GLU:O	0.425
1	P:40:GLU:OE1	P:59:GLN:CD	0.425
1	D:101:LYS:HB3	D:101:LYS:HE2	0.424
1	H:285:VAL:HG23	H:435:VAL:HG22	0.424
1	I:38:ALA:HB1	I:47:PHE:HB3	0.424
1	J:32:LEU:CG	J:57:GLU:HB2	0.424
1	J:127:ILE:CD1	J:154:LEU:CD1	0.424
1	L:38:ALA:HB1	L:47:PHE:HB3	0.424
1	O:37:ARG:CG	O:58:LYS:N	0.424
1	O:154:LEU:HD11	O:260:LEU:CD2	0.424
1	P:5:GLY:HA3	P:14:VAL:CA	0.424
1	P:169:LYS:HB2	P:169:LYS:HE3	0.424
1	M:154:LEU:O	M:159:PRO:HB3	0.424
1	D:215:LYS:HD3	D:215:LYS:O	0.423
1	K:38:ALA:HB1	K:47:PHE:HB3	0.423

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	K:32:LEU:CG	K:57:GLU:HB2	0.423
1	L:155:LEU:HD12	O:136:HIS:CA	0.423
1	M:155:LEU:HA	M:255:LYS:HD3	0.423
1	O:38:ALA:HB1	O:47:PHE:HB3	0.423
1	P:167:SER:O	P:171:ILE:HG13	0.423
1	N:33:PHE:O	N:35:GLY:N	0.423
1	A:493:LYS:HA	A:493:LYS:HD3	0.422
1	C:134:GLU:CD	C:134:GLU:H	0.422
1	E:489:ILE:HA	E:489:ILE:HD12	0.422
1	G:285:VAL:HG23	G:435:VAL:HG22	0.422
1	K:1:MET:HE2	K:118:GLU:CA	0.422
1	L:282:CYS:HB3	L:291:ILE:HG13	0.422
1	M:37:ARG:CG	M:58:LYS:N	0.422
1	M:215:MET:CE	N:149:GLN:HE21	0.422
1	N:37:ARG:CG	N:58:LYS:N	0.422
1	P:37:ARG:CG	P:58:LYS:N	0.422
1	A:300:LYS:NZ	D:275:GLU:OE2	0.422
1	G:250:ASN:OD1	G:251:GLU:N	0.422
1	K:2:LYS:C	K:120:GLU:N	0.422
1	A:132:ASN:N	A:132:ASN:OD1	0.422
1	P:7:LYS:CA	P:125:GLU:O	0.422
1	A:272:LEU:HA	A:272:LEU:HD12	0.421
1	A:498:LEU:HD21	A:516:ILE:HG12	0.421

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	D:177:LEU:HD12	D:196:ASN:HD21	0.421
1	I:207:GLU:HG3	I:227:PHE:HE1	0.421
1	J:116:LYS:CB	J:116:LYS:HZ2	0.421
1	J:184:ALA:HA	J:199:VAL:HG23	0.421
1	K:81:THR:HB	K:96:TYR:CD1	0.421
1	N:16:ASP:CA	N:28:LEU:HD12	0.421
1	O:32:LEU:N	O:116:LYS:CD	0.421
1	E:120:ASN:ND2	F:120:ASN:HD22	0.421
1	E:87:ASP:OD2	E:144:SER:OG	0.421
1	L:163:SER:O	L:167:SER:OG	0.421
1	K:97:TYR:C	M:98:GLU:O	0.421
1	D:255:MET:HB3	D:255:MET:HE2	0.420
1	H:1:SER:O	H:5:ILE:HG13	0.420
1	I:151:HIS:HB3	I:154:LEU:HB2	0.420
1	J:38:ALA:HB1	J:47:PHE:HB3	0.420
1	K:95:GLU:CD	K:95:GLU:N	0.420
1	K:131:LEU:HD21	K:153:MET:HE3	0.420
1	K:282:CYS:CB	K:285:CYS:HB3	0.420
1	L:6:ILE:CG1	L:124:ILE:HD11	0.420
1	M:38:ALA:HB1	M:47:PHE:HB3	0.420
1	M:151:HIS:ND1	M:152:PRO:HD3	0.420
1	N:38:ALA:HB1	N:47:PHE:HB3	0.420
1	N:15:SER:N	N:46:TRP:CZ3	0.420

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	N:231:ARG:HH11	N:233:VAL:HB	0.420
1	P:150:THR:CB	P:158:LYS:HG2	0.420
1	F:1:SER:OG	F:2:ARG:N	0.420
1	I:146:ASP:OD2	I:158:LYS:NZ	0.420
1	C:154:ASN:HB2	C:181:SER:HB2	0.419
1	D:300:LYS:HB3	D:300:LYS:HE3	0.419
1	F:1:SER:O	F:5:ILE:HG13	0.419
1	G:391:LEU:HA	G:391:LEU:HD12	0.419
1	M:242:ALA:N	M:248:ILE:HD11	0.419
1	N:202:LEU:HB3	N:207:GLU:OE2	0.419
1	D:489:LYS:HB2	D:489:LYS:HE2	0.418
1	H:8:ASP:HB3	H:12:ILE:HD11	0.418
1	H:279:ASN:ND2	H:281:GLU:HB2	0.418
1	I:86:LYS:HB2	I:89:TYR:CD2	0.418
1	I:97:TYR:C	I:97:TYR:CD2	0.418
1	I:116:LYS:CB	I:116:LYS:HZ2	0.418
1	J:68:ARG:CD	J:84:VAL:HB	0.418
1	J:141:ASN:HB2	M:139:ASN:HD21	0.418
1	K:5:GLY:CA	K:13:LEU:O	0.418
1	K:256:ASP:H	K:259:ASP:HB3	0.418
1	L:97:TYR:C	L:97:TYR:CD2	0.418
1	M:26:SER:HB3	M:45:ASP:HB3	0.418
1	M:15:SER:N	M:46:TRP:CZ3	0.418

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:63:LYS:HE3	M:113:GLN:HB2	0.418
1	M:155:LEU:CD1	M:255:LYS:CB	0.418
1	O:2:LYS:CB	O:120:GLU:CB	0.418
1	O:70:GLU:HG2	O:106:LYS:HD2	0.418
1	O:280:VAL:HG12	O:282:CYS:H	0.418
1	P:32:LEU:HD12	P:116:LYS:HE3	0.418
1	P:151:HIS:ND1	P:152:PRO:HD3	0.418
1	J:97:TYR:HD1	P:101:GLY:N	0.418
1	C:188:ASP:OD2	D:192:ARG:NH1	0.418
1	O:38:ALA:N	O:58:LYS:HB2	0.418
1	C:238:LEU:HA	C:238:LEU:HD12	0.417
1	C:312:ARG:CZ	C:312:ARG:HB3	0.417
1	D:339:GLU:HG3	D:340:GLU:HG2	0.417
1	E:285:VAL:HG23	E:435:VAL:HG22	0.417
1	F:279:ASN:ND2	F:281:GLU:HB2	0.417
1	G:301:LEU:HB3	G:306:PHE:HB2	0.417
1	I:6:ILE:CG1	I:124:ILE:HD11	0.417
1	J:5:GLY:CA	J:13:LEU:O	0.417
1	J:80:LEU:CD1	J:95:GLU:HG2	0.417
1	K:32:LEU:HD21	K:57:GLU:CG	0.417
1	K:68:ARG:CD	K:84:VAL:HB	0.417
1	K:143:ASN:C	P:139:ASN:HB2	0.417
1	L:86:LYS:HB2	L:89:TYR:CD2	0.417

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:155:LEU:CD1	M:155:LEU:N	0.417
1	N:15:SER:HB3	N:46:TRP:CD2	0.417
1	O:16:ASP:CA	O:28:LEU:HD12	0.417
1	P:37:ARG:NH2	P:60:MET:HG2	0.417
1	J:68:ARG:CG	J:68:ARG:NH1	0.417
1	J:136:HIS:ND1	J:138:PHE:O	0.417
1	O:33:PHE:O	O:35:GLY:N	0.417
1	A:188:ASP:OD2	B:192:ARG:NH1	0.417
1	N:7:LYS:CA	N:125:GLU:O	0.417
1	I:145:LEU:HB3	N:125:GLU:OE2	0.417
1	A:593:LEU:HA	A:593:LEU:HD23	0.416
1	C:483:ASP:HB2	C:562:ASP:HA	0.416
1	E:234:TYR:HA	E:237:LEU:HD23	0.416
1	F:8:ASP:HB3	F:12:ILE:HD11	0.416
1	G:5:ILE:HG12	G:219:TYR:CD1	0.416
1	G:234:TYR:HA	G:237:LEU:HD23	0.416
1	I:42:TYR:HB3	I:133:LEU:HD11	0.416
1	K:158:LYS:HB2	K:158:LYS:HE3	0.416
1	N:32:LEU:HD23	N:57:GLU:CD	0.416
1	N:63:LYS:HE3	N:113:GLN:HB2	0.416
1	N:3:LEU:N	N:120:GLU:CA	0.416
1	O:15:SER:N	O:46:TRP:CZ3	0.416
1	P:15:SER:N	P:46:TRP:CZ3	0.416

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	J:58:LYS:HG2	J:58:LYS:HZ2	0.416
1	J:101:GLY:N	P:98:GLU:OE2	0.416
1	L:98:GLU:HG3	N:102:LEU:N	0.416
1	C:55:LYS:O	C:129:ASP:N	0.416
1	O:7:LYS:CA	O:125:GLU:O	0.416
1	P:33:PHE:C	P:55:VAL:O	0.416
1	A:147:LYS:HG3	E:150:TYR:CD1	0.415
1	D:215:LYS:HD3	D:219:GLN:HE22	0.415
1	E:5:ILE:HG12	E:219:TYR:CD1	0.415
1	E:301:LEU:HB3	E:306:PHE:HB2	0.415
1	I:31:LEU:HD23	I:116:LYS:NZ	0.415
1	I:109:GLU:CD	I:109:GLU:N	0.415
1	J:31:LEU:HD23	J:116:LYS:NZ	0.415
1	J:86:LYS:HB2	J:89:TYR:CD2	0.415
1	J:95:GLU:CD	J:95:GLU:N	0.415
1	J:215:MET:HB2	J:215:MET:HE3	0.415
1	L:55:VAL:HB	L:116:LYS:HZ2	0.415
1	L:212:LEU:HB2	L:222:LYS:NZ	0.415
1	M:32:LEU:HD12	M:116:LYS:HE3	0.415
1	M:33:PHE:CE1	M:53:PRO:CD	0.415
1	M:37:ARG:NH2	M:60:MET:HG2	0.415
1	J:153:MET:N	M:136:HIS:CE1	0.415
1	O:37:ARG:NH2	O:60:MET:HG2	0.415

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	P:5:GLY:CA	P:13:LEU:O	0.415
1	P:154:LEU:HD13	P:160:CYS:C	0.415
1	B:58:ASN:OD1	B:71:ASN:ND2	0.415
1	N:38:ALA:N	N:58:LYS:HB2	0.415
1	A:49:GLN:NE2	A:156:ASP:OD2	0.415
1	E:95:ASP:N	E:95:ASP:OD1	0.415
1	G:87:ASP:OD2	G:144:SER:OG	0.415
1	K:143:ASN:OD1	P:140:LEU:HD13	0.415
1	A:339:GLU:HG3	A:340:GLU:HG2	0.414
1	C:255:MET:HB3	C:255:MET:HE2	0.414
1	F:5:ILE:HG12	F:219:TYR:CD1	0.414
1	H:141:LEU:HD23	H:147:ALA:HB1	0.414
1	I:5:GLY:CA	I:13:LEU:O	0.414
1	K:31:LEU:HD23	K:116:LYS:NZ	0.414
1	K:86:LYS:HB2	K:89:TYR:CD2	0.414
1	L:31:LEU:HD23	L:116:LYS:NZ	0.414
1	M:5:GLY:CA	M:13:LEU:O	0.414
1	N:5:GLY:CA	N:13:LEU:O	0.414
1	P:33:PHE:CD1	P:53:PRO:CB	0.414
1	P:175:ILE:O	P:179:ILE:HB	0.414
1	E:6:ILE:O	E:29:LYS:NZ	0.414
1	G:6:ILE:O	G:29:LYS:NZ	0.414
1	K:270:ASP:C	K:270:ASP:OD2	0.414

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:147:LYS:HG3	F:150:TYR:CD1	0.413
1	D:618:ALA:HB1	P:23:TYR:CZ	0.413
1	H:5:ILE:HG12	H:219:TYR:CD1	0.413
1	I:12:PHE:HZ	I:123:VAL:HG22	0.413
1	I:198:LYS:HB3	I:233:VAL:HG22	0.413
1	J:204:LYS:HD3	J:283:LYS:HE2	0.413
1	K:4:ILE:CA	K:14:VAL:HG23	0.413
1	K:228:GLN:HE22	K:231:ARG:HB2	0.413
1	L:12:PHE:HZ	L:123:VAL:HG22	0.413
1	L:162:LEU:HB2	L:252:PHE:HB2	0.413
1	L:242:ALA:HA	L:248:ILE:HD11	0.413
1	M:5:GLY:HA3	M:14:VAL:CA	0.413
1	N:37:ARG:NH2	N:60:MET:HG2	0.413
1	O:63:LYS:HE3	O:113:GLN:HB2	0.413
1	O:210:VAL:HA	P:261:LYS:NZ	0.413
1	N:141:ASN:H	N:141:ASN:ND2	0.413
1	D:232:GLU:CD	D:232:GLU:H	0.412
1	E:308:PHE:CE1	E:419:HIS:HB3	0.412
1	F:141:LEU:HD23	F:147:ALA:HB1	0.412
1	L:109:GLU:CD	L:109:GLU:N	0.412
1	L:125:GLU:CB	L:154:LEU:HD11	0.412
1	M:33:PHE:CD1	M:53:PRO:CB	0.412
1	P:178:ASN:HB2	P:272:MET:HE2	0.412

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	P:179:ILE:HA	P:179:ILE:HD12	0.412
1	A:521:PRO:HD3	A:532:ARG:HH12	0.412
1	P:155:LEU:CD1	P:155:LEU:N	0.412
1	I:280:VAL:O	I:291:ILE:N	0.412
1	M:33:PHE:C	M:55:VAL:O	0.412
1	O:153:MET:O	O:161:TYR:CD2	0.412
1	C:413:LEU:HD21	C:466:HIS:NE2	0.411
1	C:521:PRO:HD3	C:532:ARG:HH12	0.411
1	I:62:ALA:CB	I:112:GLN:HG2	0.411
1	I:106:LYS:HB2	I:106:LYS:HE2	0.411
1	I:133:LEU:HA	I:133:LEU:HD12	0.411
1	K:39:THR:HA	K:58:LYS:HZ1	0.411
1	K:92:GLU:HA	K:97:TYR:CD1	0.411
1	K:116:LYS:CB	K:116:LYS:HZ2	0.411
1	L:1:MET:HE2	L:118:GLU:C	0.411
1	L:5:GLY:CA	L:13:LEU:O	0.411
1	L:62:ALA:CB	L:112:GLN:HG2	0.411
1	M:15:SER:HB3	M:46:TRP:CZ3	0.411
1	N:154:LEU:CD1	N:160:CYS:HB3	0.411
1	N:256:ASP:C	N:256:ASP:OD2	0.411
1	O:151:HIS:ND1	O:152:PRO:HD3	0.411
1	P:159:PRO:HD2	P:253:SER:HA	0.411
1	K:18:ILE:H	K:18:ILE:HG12	0.411

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:191:ASP:N	L:191:ASP:OD1	0.411
1	M:40:GLU:OE1	M:59:GLN:CD	0.411
1	K:149:GLN:CB	P:131:LEU:O	0.411
1	A:311:GLY:HA2	A:314:LYS:NZ	0.410
1	B:300:LYS:HD2	C:277:VAL:HG12	0.410
1	I:72:LYS:CD	I:102:LEU:HB3	0.410
1	J:92:GLU:HA	J:97:TYR:CD1	0.410
1	J:6:ILE:CG1	J:124:ILE:HD11	0.410
1	L:28:LEU:HA	L:28:LEU:HD23	0.410
1	J:148:ILE:HD12	M:46:TRP:CE2	0.410
1	N:58:LYS:HB3	N:58:LYS:HE3	0.410
1	N:1:MET:CG	N:119:PHE:CB	0.410
1	N:165:GLU:C	N:165:GLU:OE1	0.410
1	L:148:ILE:HD11	O:46:TRP:CZ2	0.410
1	P:63:LYS:HE3	P:113:GLN:HB2	0.410
1	M:38:ALA:N	M:58:LYS:HB2	0.410
1	O:22:ARG:HB2	O:22:ARG:HE	0.410
1	B:55:LYS:O	B:129:ASP:N	0.410
1	E:384:PHE:HB3	E:389:ILE:O	0.409
1	F:301:LEU:HB3	F:306:PHE:HB2	0.409
1	G:1:SER:O	G:5:ILE:HG13	0.409
1	G:308:PHE:CE1	G:419:HIS:HB3	0.409
1	H:234:TYR:HA	H:237:LEU:HD23	0.409

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:68:ARG:CD	I:84:VAL:HB	0.409
1	I:149:GLN:HG3	N:131:LEU:HD21	0.409
1	J:31:LEU:CA	J:56:ILE:CD1	0.409
1	J:62:ALA:CB	J:112:GLN:HG2	0.409
1	K:62:ALA:CB	K:112:GLN:HG2	0.409
1	K:125:GLU:HB3	K:154:LEU:CD1	0.409
1	L:72:LYS:CD	L:102:LEU:HB3	0.409
1	O:5:GLY:CA	O:13:LEU:O	0.409
1	O:4:ILE:CA	O:14:VAL:HG23	0.409
1	O:15:SER:HB3	O:46:TRP:CD2	0.409
1	P:265:LYS:HB2	P:265:LYS:HE2	0.409
1	E:234:TYR:OH	E:473:TYR:OH	0.409
1	G:1:SER:OG	G:2:ARG:N	0.409
1	I:137:ASN:OD1	I:138:PHE:N	0.409
1	D:272:LEU:HA	D:272:LEU:HD12	0.408
1	E:8:ASP:HB3	E:12:ILE:HD11	0.408
1	G:8:ASP:HB3	G:12:ILE:HD11	0.408
1	G:384:PHE:HB3	G:389:ILE:O	0.408
1	J:32:LEU:HD21	J:57:GLU:CG	0.408
1	K:80:LEU:CD1	K:95:GLU:HG2	0.408
1	L:68:ARG:CD	L:84:VAL:HB	0.408
1	L:92:GLU:HA	L:97:TYR:CD1	0.408
1	L:155:LEU:HD12	O:136:HIS:H	0.408

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	M:6:ILE:HD12	M:46:TRP:HH2	0.408
1	I:149:GLN:CA	N:131:LEU:HD23	0.408
1	N:151:HIS:ND1	N:152:PRO:HD3	0.408
1	P:198:LYS:HB2	P:235:ILE:CD1	0.408
1	L:151:HIS:H	O:134:GLN:HG3	0.408
1	B:101:LYS:HB3	B:101:LYS:HE2	0.407
1	C:319:SER:HA	C:322:ASN:HB2	0.407
1	C:332:LYS:HB3	C:332:LYS:HE2	0.407
1	F:234:TYR:HA	F:237:LEU:HD23	0.407
1	H:301:LEU:HB3	H:306:PHE:HB2	0.407
1	I:58:LYS:HA	I:58:LYS:HD3	0.407
1	I:162:LEU:HA	I:162:LEU:HD12	0.407
1	J:4:ILE:CA	J:14:VAL:HG23	0.407
1	K:28:LEU:HA	K:28:LEU:HD23	0.407
1	K:6:ILE:CG1	K:124:ILE:HD11	0.407
1	L:75:PHE:HA	L:75:PHE:HD2	0.407
1	K:68:ARG:CG	K:68:ARG:NH1	0.407
1	N:1:MET:HE3	N:119:PHE:N	0.407
1	M:34:ASP:OD1	M:55:VAL:N	0.407
1	A:146:VAL:HG11	A:150:ARG:HG3	0.406
1	E:1:SER:O	E:5:ILE:HG13	0.406
1	I:1:MET:HE1	I:31:LEU:HD11	0.406
1	I:1:MET:HE2	I:118:GLU:C	0.406

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	I:37:ARG:HD3	I:58:LYS:HA	0.406
1	I:92:GLU:HA	I:97:TYR:CD1	0.406
1	I:125:GLU:CB	I:154:LEU:CD1	0.406
1	J:134:GLN:CD	J:134:GLN:H	0.406
1	M:150:THR:CB	M:158:LYS:HG2	0.406
1	M:170:ILE:HD12	M:171:ILE:N	0.406
1	J:284:CYS:SG	N:283:LYS:HB3	0.406
1	L:288:ARG:NH2	P:280:VAL:HB	0.406
1	J:117:ILE:H	J:117:ILE:HG13	0.406
1	J:2:LYS:C	J:120:GLU:N	0.406
1	K:80:LEU:CD2	K:80:LEU:H	0.406
1	B:482:THR:OG1	B:483:ASP:N	0.406
1	D:132:ASN:N	D:132:ASN:OD1	0.406
1	D:280:GLU:OE2	I:244:GLN:NE2	0.406
1	G:95:ASP:N	G:95:ASP:OD1	0.406
1	J:162:LEU:N	J:252:PHE:O	0.406
1	N:34:ASP:OD1	N:55:VAL:N	0.406
1	N:59:GLN:HG2	N:59:GLN:O	0.406
1	C:527:LYS:HB3	C:527:LYS:HE2	0.405
1	D:327:LYS:HB3	D:327:LYS:HE2	0.405
1	G:141:LEU:HD23	G:147:ALA:HB1	0.405
1	J:2:LYS:CG	J:120:GLU:HB2	0.405
1	J:147:ARG:HD3	J:148:ILE:N	0.405

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:37:ARG:HD3	L:58:LYS:HA	0.405
1	L:145:LEU:HD12	O:125:GLU:CD	0.405
1	L:240:PRO:HA	L:249:VAL:HG12	0.405
1	N:234:GLU:C	N:234:GLU:OE1	0.405
1	J:95:GLU:C	P:102:LEU:CD2	0.405
1	N:155:LEU:CD1	N:155:LEU:N	0.405
1	N:171:ILE:H	N:171:ILE:HG13	0.405
1	O:1:MET:HE3	O:119:PHE:N	0.405
1	P:38:ALA:N	P:58:LYS:HB2	0.405
1	P:59:GLN:HG2	P:59:GLN:O	0.405
1	A:332:LYS:HB3	A:332:LYS:HE2	0.404
1	H:308:PHE:CE1	H:419:HIS:HB3	0.404
1	H:384:PHE:HB3	H:389:ILE:O	0.404
1	I:6:ILE:HD12	I:46:TRP:HH2	0.404
1	J:28:LEU:HA	J:28:LEU:HD23	0.404
1	J:36:LYS:HA	J:57:GLU:HG3	0.404
1	K:36:LYS:HA	K:57:GLU:HG3	0.404
1	K:2:LYS:CG	K:120:GLU:HB2	0.404
1	K:198:LYS:NZ	K:277:GLU:HB3	0.404
1	L:1:MET:HE1	L:31:LEU:HD11	0.404
1	N:150:THR:HB	N:161:TYR:C	0.404
1	P:6:ILE:HD12	P:46:TRP:HH2	0.404
1	M:21:LYS:H	M:21:LYS:HG3	0.404

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	L:97:TYR:OH	N:100:LYS:CD	0.404
1	L:207:GLU:OE1	L:208:TYR:N	0.404
1	A:254:GLU:HA	A:254:GLU:OE1	0.403
1	B:182:GLU:HB3	B:184:ASP:OD1	0.403
1	F:308:PHE:CE1	F:419:HIS:HB3	0.403
1	G:2:ARG:HA	G:5:ILE:HD12	0.403
1	I:169:LYS:HB3	I:169:LYS:HE3	0.403
1	J:252:PHE:HB3	J:260:LEU:HD11	0.403
1	M:150:THR:O	M:160:CYS:HA	0.403
1	O:155:LEU:HD23	O:255:LYS:HE3	0.403
1	K:148:ILE:HD11	P:46:TRP:CE2	0.403
1	B:66:ASN:HD21	B:86:ILE:CG2	0.403
1	D:34:ILE:H	D:34:ILE:HG13	0.403
1	E:120:ASN:HD22	F:120:ASN:ND2	0.403
1	J:202:LEU:HD12	J:228:GLN:NE2	0.403
1	K:117:ILE:H	K:117:ILE:HG13	0.403
1	M:2:LYS:C	M:120:GLU:N	0.403
1	N:98:GLU:H	N:98:GLU:HG3	0.403
1	P:139:ASN:N	P:139:ASN:ND2	0.403
1	E:86:LYS:NZ	E:93:TYR:O	0.403
1	B:22:LEU:HD11	B:11:PHE:CG	0.402
1	C:329:TYR:HB3	C:332:LYS:HG3	0.402
1	D:274:LYS:H	D:274:LYS:HE2	0.402

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	E:2:ARG:HA	E:5:ILE:HD12	0.402
1	F:384:PHE:HB3	F:389:ILE:O	0.402
1	K:12:PHE:HZ	K:123:VAL:HG22	0.402
1	P:188:SER:HB3	P:195:THR:HB	0.402
1	I:155:LEU:CD2	N:136:HIS:HD2	0.402
1	M:157:THR:HB	M:158:LYS:H	0.402
1	O:155:LEU:CD1	O:155:LEU:N	0.402
1	A:578:ILE:O	C:490:LYS:NZ	0.402
1	B:156:ASP:N	B:156:ASP:OD1	0.402
1	C:481:LYS:NZ	C:559:SER:OG	0.402
1	B:150:ARG:NH1	F:149:GLN:OE1	0.402
1	K:207:GLU:OE2	K:225:LYS:NZ	0.402
1	N:154:LEU:O	N:159:PRO:HB3	0.402
1	O:59:GLN:HG2	O:59:GLN:O	0.402
1	A:130:LEU:HD21	A:142:LEU:HD23	0.401
1	I:174:HIS:CE1	I:268:LEU:HB3	0.401
1	J:1:MET:HE1	J:31:LEU:HD11	0.401
1	J:64:LYS:HE2	J:110:ILE:H	0.401
1	J:98:GLU:HG2	P:103:TYR:H	0.401
1	J:46:TRP:CE2	J:153:MET:HG3	0.401
1	L:14:VAL:HG11	L:119:PHE:CZ	0.401
1	C:182:GLU:HB3	C:184:ASP:OD1	0.401
1	D:570:ALA:HB2	K:23:TYR:OH	0.401

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	O:153:MET:O	O:153:MET:SD	0.401
1	B:98:LEU:HD11	B:160:ILE:HG22	0.400
1	E:141:LEU:HD23	E:147:ALA:HB1	0.400
1	I:149:GLN:HG2	N:131:LEU:HA	0.400
1	K:37:ARG:HD3	K:58:LYS:HA	0.400
1	P:154:LEU:HD21	P:255:LYS:CA	0.400
1	D:521:PRO:HD3	D:532:ARG:HH12	0.400
1	P:187:THR:OG1	P:188:SER:N	0.400

Torsion angles: Protein backbone

In the following table, Ramachandran outliers are listed. The Analysed column shows the number of residues for which the backbone conformation was analysed.

Model ID	Analyzed	Favored	Allowed	Outliers
1	6664	6398	208	58

Detailed list of outliers are tabulated below.

Torsion angles: Protein sidechains

In the following table, sidechain outliers are listed. The Analysed column shows the number of residues for which the sidechain conformation was analysed.

Model ID	Analyzed	Favored	Allowed	Outliers
1	6188	4335	1202	651

Detailed list of outliers are tabulated below.

Model ID	Chain	Residue ID	Residue type
1	A	1	VAL
1	A	271	SER
1	A	372	SER
1	A	389	SER
1	A	458	GLU

Model ID	Chain	Residue ID	Residue type
1	A	479	ILE
1	A	503	ARG
1	A	600	VAL
1	B	39	ASP
1	B	66	ASN
1	B	83	MET
1	B	118	THR
1	B	169	LYS
1	B	171	LEU
1	B	210	LEU
1	B	271	SER
1	B	364	LYS
1	B	372	SER
1	B	389	SER
1	B	397	SER
1	B	479	ILE
1	B	506	ASN
1	B	600	VAL
1	B	624	VAL
1	C	43	THR
1	C	51	THR
1	C	85	ASP
1	C	266	THR

Model ID	Chain	Residue ID	Residue type
1	C	271	SER
1	C	288	LYS
1	C	338	ILE
1	C	372	SER
1	C	389	SER
1	C	479	ILE
1	C	503	ARG
1	C	600	VAL
1	D	1	VAL
1	D	5	ASP
1	D	43	THR
1	D	66	ASN
1	D	133	TYR
1	D	210	LEU
1	D	211	VAL
1	D	238	LEU
1	D	271	SER
1	D	277	VAL
1	D	364	LYS
1	D	372	SER
1	D	389	SER
1	D	397	SER
1	D	503	ARG

Model ID	Chain	Residue ID	Residue type
1	D	600	VAL
1	E	50	ASN
1	E	125	TYR
1	E	195	ILE
1	E	198	TRP
1	E	217	ASN
1	E	368	VAL
1	E	372	ASN
1	F	50	ASN
1	F	125	TYR
1	F	195	ILE
1	F	198	TRP
1	F	217	ASN
1	F	368	VAL
1	F	372	ASN
1	G	50	ASN
1	G	125	TYR
1	G	195	ILE
1	G	198	TRP
1	G	217	ASN
1	G	368	VAL
1	G	372	ASN
1	H	50	ASN

Model ID	Chain	Residue ID	Residue type
1	H	125	TYR
1	H	195	ILE
1	H	198	TRP
1	H	217	ASN
1	H	368	VAL
1	H	372	ASN
1	I	2	LYS
1	I	4	ILE
1	I	6	ILE
1	I	8	THR
1	I	15	SER
1	I	16	ASP
1	I	18	ILE
1	I	19	GLU
1	I	22	ARG
1	I	23	TYR
1	I	26	SER
1	I	27	GLN
1	I	29	ASP
1	I	30	GLU
1	I	31	LEU
1	I	54	SER
1	I	55	VAL

Model ID	Chain	Residue ID	Residue type
1	I	56	ILE
1	I	57	GLU
1	I	58	LYS
1	I	59	GLN
1	I	60	MET
1	I	63	LYS
1	I	65	ILE
1	I	66	ASN
1	I	67	HIS
1	I	68	ARG
1	I	70	GLU
1	I	71	LEU
1	I	72	LYS
1	I	73	GLU
1	I	75	PHE
1	I	78	SER
1	I	79	GLU
1	I	80	LEU
1	I	81	THR
1	I	83	LYS
1	I	84	VAL
1	I	85	ILE
1	I	86	LYS

Model ID	Chain	Residue ID	Residue type
1	I	90	ILE
1	I	92	GLU
1	I	94	SER
1	I	95	GLU
1	I	96	TYR
1	I	100	LYS
1	I	102	LEU
1	I	105	LEU
1	I	106	LYS
1	I	107	PHE
1	I	110	ILE
1	I	112	GLN
1	I	113	GLN
1	I	114	ASN
1	I	115	GLU
1	I	116	LYS
1	I	117	ILE
1	I	118	GLU
1	I	119	PHE
1	I	120	GLU
1	I	121	MET
1	I	127	ILE
1	I	128	ASP

Model ID	Chain	Residue ID	Residue type
1	I	141	ASN
1	I	167	SER
1	I	194	LEU
1	I	216	TYR
1	I	222	LYS
1	J	2	LYS
1	J	4	ILE
1	J	6	ILE
1	J	8	THR
1	J	15	SER
1	J	16	ASP
1	J	18	ILE
1	J	19	GLU
1	J	22	ARG
1	J	23	TYR
1	J	26	SER
1	J	27	GLN
1	J	29	ASP
1	J	30	GLU
1	J	31	LEU
1	J	54	SER
1	J	55	VAL
1	J	56	ILE

Model ID	Chain	Residue ID	Residue type
1	J	57	GLU
1	J	58	LYS
1	J	59	GLN
1	J	60	MET
1	J	63	LYS
1	J	65	ILE
1	J	66	ASN
1	J	67	HIS
1	J	68	ARG
1	J	70	GLU
1	J	71	LEU
1	J	72	LYS
1	J	73	GLU
1	J	75	PHE
1	J	78	SER
1	J	79	GLU
1	J	80	LEU
1	J	81	THR
1	J	83	LYS
1	J	84	VAL
1	J	85	ILE
1	J	86	LYS
1	J	90	ILE

Model ID	Chain	Residue ID	Residue type
1	J	92	GLU
1	J	94	SER
1	J	95	GLU
1	J	96	TYR
1	J	100	LYS
1	J	102	LEU
1	J	105	LEU
1	J	106	LYS
1	J	107	PHE
1	J	110	ILE
1	J	112	GLN
1	J	113	GLN
1	J	114	ASN
1	J	115	GLU
1	J	116	LYS
1	J	117	ILE
1	J	118	GLU
1	J	119	PHE
1	J	120	GLU
1	J	121	MET
1	J	127	ILE
1	J	128	ASP
1	J	162	LEU

Model ID	Chain	Residue ID	Residue type
1	J	164	GLN
1	J	167	SER
1	J	200	LEU
1	J	215	MET
1	K	2	LYS
1	K	4	ILE
1	K	6	ILE
1	K	8	THR
1	K	15	SER
1	K	16	ASP
1	K	18	ILE
1	K	19	GLU
1	K	22	ARG
1	K	23	TYR
1	K	26	SER
1	K	27	GLN
1	K	29	ASP
1	K	30	GLU
1	K	31	LEU
1	K	54	SER
1	K	55	VAL
1	K	56	ILE
1	K	57	GLU

Model ID	Chain	Residue ID	Residue type
1	K	58	LYS
1	K	59	GLN
1	K	60	MET
1	K	63	LYS
1	K	65	ILE
1	K	66	ASN
1	K	67	HIS
1	K	68	ARG
1	K	70	GLU
1	K	71	LEU
1	K	72	LYS
1	K	73	GLU
1	K	75	PHE
1	K	78	SER
1	K	79	GLU
1	K	80	LEU
1	K	81	THR
1	K	83	LYS
1	K	84	VAL
1	K	85	ILE
1	K	86	LYS
1	K	90	ILE
1	K	92	GLU

Model ID	Chain	Residue ID	Residue type
1	K	94	SER
1	K	95	GLU
1	K	96	TYR
1	K	100	LYS
1	K	102	LEU
1	K	105	LEU
1	K	106	LYS
1	K	107	PHE
1	K	110	ILE
1	K	112	GLN
1	K	113	GLN
1	K	114	ASN
1	K	115	GLU
1	K	116	LYS
1	K	117	ILE
1	K	118	GLU
1	K	119	PHE
1	K	120	GLU
1	K	121	MET
1	K	127	ILE
1	K	128	ASP
1	K	133	LEU
1	K	141	ASN

Model ID	Chain	Residue ID	Residue type
1	K	186	ILE
1	K	196	VAL
1	K	210	VAL
1	K	216	TYR
1	K	228	GLN
1	K	229	THR
1	K	253	SER
1	K	292	LEU
1	L	2	LYS
1	L	4	ILE
1	L	6	ILE
1	L	8	THR
1	L	15	SER
1	L	16	ASP
1	L	18	ILE
1	L	19	GLU
1	L	22	ARG
1	L	23	TYR
1	L	26	SER
1	L	27	GLN
1	L	29	ASP
1	L	30	GLU
1	L	31	LEU

Model ID	Chain	Residue ID	Residue type
1	L	54	SER
1	L	55	VAL
1	L	56	ILE
1	L	57	GLU
1	L	58	LYS
1	L	59	GLN
1	L	60	MET
1	L	63	LYS
1	L	65	ILE
1	L	66	ASN
1	L	67	HIS
1	L	68	ARG
1	L	70	GLU
1	L	71	LEU
1	L	72	LYS
1	L	73	GLU
1	L	75	PHE
1	L	78	SER
1	L	79	GLU
1	L	80	LEU
1	L	81	THR
1	L	83	LYS
1	L	84	VAL

Model ID	Chain	Residue ID	Residue type
1	L	85	ILE
1	L	86	LYS
1	L	90	ILE
1	L	92	GLU
1	L	94	SER
1	L	95	GLU
1	L	96	TYR
1	L	100	LYS
1	L	102	LEU
1	L	105	LEU
1	L	106	LYS
1	L	107	PHE
1	L	110	ILE
1	L	112	GLN
1	L	113	GLN
1	L	114	ASN
1	L	115	GLU
1	L	116	LYS
1	L	117	ILE
1	L	118	GLU
1	L	119	PHE
1	L	120	GLU
1	L	121	MET

Model ID	Chain	Residue ID	Residue type
1	L	127	ILE
1	L	128	ASP
1	L	141	ASN
1	L	150	THR
1	L	164	GLN
1	L	194	LEU
1	L	210	VAL
1	L	212	LEU
1	L	216	TYR
1	L	235	ILE
1	L	253	SER
1	L	291	ILE
1	M	2	LYS
1	M	4	ILE
1	M	6	ILE
1	M	8	THR
1	M	15	SER
1	M	18	ILE
1	M	21	LYS
1	M	29	ASP
1	M	30	GLU
1	M	31	LEU
1	M	54	SER

Model ID	Chain	Residue ID	Residue type
1	M	55	VAL
1	M	56	ILE
1	M	58	LYS
1	M	59	GLN
1	M	60	MET
1	M	63	LYS
1	M	64	LYS
1	M	65	ILE
1	M	67	HIS
1	M	68	ARG
1	M	70	GLU
1	M	71	LEU
1	M	73	GLU
1	M	77	GLU
1	M	78	SER
1	M	79	GLU
1	M	80	LEU
1	M	83	LYS
1	M	85	ILE
1	M	92	GLU
1	M	94	SER
1	M	95	GLU
1	M	96	TYR

Model ID	Chain	Residue ID	Residue type
1	M	98	GLU
1	M	99	VAL
1	M	100	LYS
1	M	105	LEU
1	M	107	PHE
1	M	108	GLU
1	M	109	GLU
1	M	110	ILE
1	M	115	GLU
1	M	117	ILE
1	M	118	GLU
1	M	119	PHE
1	M	120	GLU
1	M	121	MET
1	M	131	LEU
1	M	137	ASN
1	M	138	PHE
1	M	139	ASN
1	M	140	LEU
1	M	141	ASN
1	M	143	ASN
1	M	144	LEU
1	M	145	LEU

Model ID	Chain	Residue ID	Residue type
1	M	146	ASP
1	M	147	ARG
1	M	148	ILE
1	M	149	GLN
1	M	151	HIS
1	M	153	MET
1	M	154	LEU
1	M	156	GLU
1	M	157	THR
1	M	158	LYS
1	M	164	GLN
1	M	196	VAL
1	M	233	VAL
1	M	256	ASP
1	M	279	LEU
1	N	2	LYS
1	N	4	ILE
1	N	6	ILE
1	N	8	THR
1	N	15	SER
1	N	18	ILE
1	N	21	LYS
1	N	29	ASP

Model ID	Chain	Residue ID	Residue type
1	N	30	GLU
1	N	31	LEU
1	N	54	SER
1	N	55	VAL
1	N	56	ILE
1	N	58	LYS
1	N	59	GLN
1	N	60	MET
1	N	63	LYS
1	N	64	LYS
1	N	65	ILE
1	N	67	HIS
1	N	68	ARG
1	N	70	GLU
1	N	71	LEU
1	N	73	GLU
1	N	77	GLU
1	N	78	SER
1	N	79	GLU
1	N	80	LEU
1	N	83	LYS
1	N	85	ILE
1	N	92	GLU

Model ID	Chain	Residue ID	Residue type
1	N	94	SER
1	N	95	GLU
1	N	96	TYR
1	N	98	GLU
1	N	99	VAL
1	N	100	LYS
1	N	105	LEU
1	N	107	PHE
1	N	108	GLU
1	N	109	GLU
1	N	110	ILE
1	N	115	GLU
1	N	117	ILE
1	N	118	GLU
1	N	119	PHE
1	N	120	GLU
1	N	121	MET
1	N	131	LEU
1	N	137	ASN
1	N	138	PHE
1	N	139	ASN
1	N	140	LEU
1	N	141	ASN

Model ID	Chain	Residue ID	Residue type
1	N	143	ASN
1	N	144	LEU
1	N	145	LEU
1	N	146	ASP
1	N	147	ARG
1	N	148	ILE
1	N	149	GLN
1	N	151	HIS
1	N	153	MET
1	N	154	LEU
1	N	156	GLU
1	N	157	THR
1	N	158	LYS
1	N	196	VAL
1	N	210	VAL
1	N	233	VAL
1	N	257	VAL
1	O	2	LYS
1	O	4	ILE
1	O	6	ILE
1	O	8	THR
1	O	15	SER
1	O	18	ILE

Model ID	Chain	Residue ID	Residue type
1	O	21	LYS
1	O	29	ASP
1	O	30	GLU
1	O	31	LEU
1	O	54	SER
1	O	55	VAL
1	O	56	ILE
1	O	58	LYS
1	O	59	GLN
1	O	60	MET
1	O	63	LYS
1	O	64	LYS
1	O	65	ILE
1	O	67	HIS
1	O	68	ARG
1	O	70	GLU
1	O	71	LEU
1	O	73	GLU
1	O	77	GLU
1	O	78	SER
1	O	79	GLU
1	O	80	LEU
1	O	83	LYS

Model ID	Chain	Residue ID	Residue type
1	O	85	ILE
1	O	92	GLU
1	O	94	SER
1	O	95	GLU
1	O	96	TYR
1	O	98	GLU
1	O	99	VAL
1	O	100	LYS
1	O	105	LEU
1	O	107	PHE
1	O	108	GLU
1	O	109	GLU
1	O	110	ILE
1	O	115	GLU
1	O	117	ILE
1	O	118	GLU
1	O	119	PHE
1	O	120	GLU
1	O	121	MET
1	O	131	LEU
1	O	137	ASN
1	O	138	PHE
1	O	139	ASN

Model ID	Chain	Residue ID	Residue type
1	O	140	LEU
1	O	141	ASN
1	O	143	ASN
1	O	144	LEU
1	O	145	LEU
1	O	146	ASP
1	O	147	ARG
1	O	148	ILE
1	O	149	GLN
1	O	151	HIS
1	O	153	MET
1	O	154	LEU
1	O	156	GLU
1	O	157	THR
1	O	158	LYS
1	O	163	SER
1	O	164	GLN
1	O	209	ILE
1	O	213	ASN
1	O	253	SER
1	O	282	CYS
1	P	2	LYS
1	P	4	ILE

Model ID	Chain	Residue ID	Residue type
1	P	6	ILE
1	P	8	THR
1	P	15	SER
1	P	18	ILE
1	P	21	LYS
1	P	29	ASP
1	P	30	GLU
1	P	31	LEU
1	P	54	SER
1	P	55	VAL
1	P	56	ILE
1	P	58	LYS
1	P	59	GLN
1	P	60	MET
1	P	63	LYS
1	P	64	LYS
1	P	65	ILE
1	P	67	HIS
1	P	68	ARG
1	P	70	GLU
1	P	71	LEU
1	P	73	GLU
1	P	77	GLU

Model ID	Chain	Residue ID	Residue type
1	P	78	SER
1	P	79	GLU
1	P	80	LEU
1	P	83	LYS
1	P	85	ILE
1	P	92	GLU
1	P	94	SER
1	P	95	GLU
1	P	96	TYR
1	P	98	GLU
1	P	99	VAL
1	P	100	LYS
1	P	105	LEU
1	P	107	PHE
1	P	108	GLU
1	P	109	GLU
1	P	110	ILE
1	P	115	GLU
1	P	117	ILE
1	P	118	GLU
1	P	119	PHE
1	P	120	GLU
1	P	121	MET

Model ID	Chain	Residue ID	Residue type
1	P	131	LEU
1	P	137	ASN
1	P	138	PHE
1	P	139	ASN
1	P	140	LEU
1	P	141	ASN
1	P	143	ASN
1	P	144	LEU
1	P	145	LEU
1	P	146	ASP
1	P	147	ARG
1	P	148	ILE
1	P	149	GLN
1	P	151	HIS
1	P	153	MET
1	P	154	LEU
1	P	156	GLU
1	P	157	THR
1	P	158	LYS
1	P	167	SER
1	P	170	ILE
1	P	178	ASN
1	P	196	VAL

Model ID	Chain	Residue ID	Residue type
1	P	264	ILE
1	P	285	CYS

Fit of model to data used for modeling

3DEM volume

Validation for this section is under development.

Fit of model to data used for validation

Validation for this section is under development.

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