Integrative Structure Validation Report

July 22, 2024 - 04:12 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	9A0N
PDB-Dev ID	PDBDEV_00000059
Structure Title	Integrative structure of Pg-cGMP-GAFab complex
Structure Authors	Gupta R; Liu Y; Wang H; Nordyke CT; Puterbaugh RZ; Cui W; Varga K; Chu F; Ke H; Vashisth H; Cote RH

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

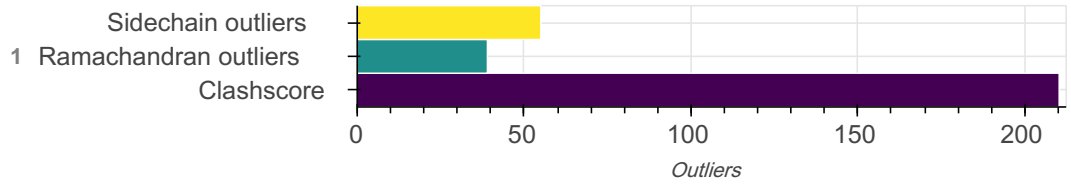
A user guide is available at https://pdb-dev.wwpdb.org/validation_help.html with specific help available everywhere you see the ? symbol.

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 6 subunits in each model. A total of 4 datasets or restraints were used to build this entry. Each model is represented by 2 rigid bodies and 4 flexible or non-rigid units.

Entry composition

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

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
1	1	1	PDE GAFab	A	A	399
1	2	1	PDE GAFab	B	B	399
1	3	2	PDE gamma subunit	C	C	51
1	4	2	PDE gamma subunit	D	D	51
1	5	3	GUANOSINE-3',5'-MONOPHOSPHATE	E	A	Not available
1	6	3	GUANOSINE-3',5'-MONOPHOSPHATE	F	B	Not available

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

ID	Dataset type	Database name	Data access code
1	Crosslinking-MS data	PRIDE	PXD020817
2	Experimental model	PDB	6X88
3	Experimental model	PDB	6MZB
4	Comparative model	Not available	Not available

Representation

This entry has only one representation and includes 2 rigid bodies and 4 flexible units

Chain ID	Rigid bodies	Non-rigid segments
E	None-None	-
F	None-None	-
A	-	1-399
B	-	1-399
C	-	1-51
D	-	1-51

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

There are 2 software packages reported in this entry.

ID	Software name	Software version	Software classification	Software location

ID	Software name	Software version	Software classification	Software location
1	Integrative Modeling Platform (IMP)	Not available	integrative model building	https://integrativemodeling.org
2	Modeller	Not available	model building	https://salilab.org/modeller/

Data quality

Crosslinking-MS

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 451 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
CD1-CE1-CZ	120.00	15.48	1
CG-CD1-CE1	120.70	47.59	1
CE1-CZ-CE2	120.00	53.66	1
CD1-CG-CD2	118.60	73.72	1
CD2-CE2-CZ	120.00	79.09	1
CB-CG-CD1	120.70	152.66	1
C-N-CA	121.70	154.35	1
CG-CD2-CE2	120.70	90.47	1
C-N-CA	121.70	94.03	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CA-C-N	116.90	139.40	1
C-N-CA	121.70	97.09	1
CA-N-CD	112.00	93.26	1
N-CA-CB	103.00	88.28	1
CA-C-N	116.90	136.58	1
C-CA-CB	110.10	86.50	1
C-CA-CB	110.10	87.21	1
C-CA-CB	110.10	87.42	1
CA-CB-CG	113.80	101.89	1
C-N-CA	121.70	143.11	1
C-N-CA	121.70	143.03	1
CA-N-CD	112.00	96.06	1
CA-CB-CG	113.80	102.51	1
CA-C-N	116.90	133.73	1
N-CA-C	113.30	81.14	1
CA-CB-CG	113.90	93.99	1
CA-C-N	116.90	100.38	1
CA-CB-CG	113.80	102.96	1
C-CA-CB	109.10	85.59	1
N-CA-CB	110.50	128.64	1
CA-C-O	120.80	103.39	1
C-N-CA	121.70	140.00	1
C-CA-CB	111.40	92.15	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
O-C-N	123.00	106.96	1
C-CA-CB	110.10	129.07	1
N-CA-CB	110.50	127.44	1
CA-CB-CG	113.80	103.99	1
C-N-CA	121.70	104.04	1
CA-C-N	116.90	131.49	1
C-N-CA	121.70	104.56	1
N-CA-CB	110.50	126.57	1
C-N-CA	121.70	104.87	1
C-N-CA	121.70	104.93	1
C-N-CA	121.70	138.44	1
N-CA-CB	103.00	113.17	1
C-N-CA	121.70	105.07	1
O-C-N	123.00	108.32	1
C-CA-CB	110.10	127.47	1
N-CA-CB	110.50	95.04	1
C-N-CA	121.70	105.33	1
N-CA-CB	110.50	125.72	1
C-N-CA	121.70	137.80	1
N-CA-CB	110.50	125.60	1
CA-CB-CG	113.80	104.96	1
N-CA-CB	103.00	112.66	1
N-CA-C	111.00	86.42	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CA-CB-CG	113.90	98.20	1
C-CA-CB	110.10	93.63	1
C-N-CA	121.70	106.28	1
CA-C-N	116.90	129.66	1
CA-CB-CG	112.60	104.27	1
CA-CB-CG	112.60	104.28	1
C-N-CA	121.70	106.81	1
CA-CB-CG	113.80	105.54	1
C-CA-CB	111.40	95.75	1
C-CA-CB	110.10	94.53	1
CA-C-N	116.20	132.51	1
N-CA-C	111.00	88.36	1
N-CA-CB	110.50	124.22	1
CA-CB-CG	113.80	105.76	1
C-N-CA	121.70	136.10	2
C-N-CA	121.70	107.34	1
CA-CB-CG	113.90	99.61	1
C-CA-CB	110.10	125.16	1
N-CA-CB	110.50	123.91	1
CA-CB-CG	113.80	106.05	1
C-N-CA	121.70	135.64	1
CA-CB-CG	112.60	104.91	1
CA-CB-CG	112.60	104.97	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
N-CA-C	113.30	91.18	1
CB-CG-CD2	120.70	133.61	1
CA-CB-CG	113.80	106.33	1
C-CA-CB	110.50	99.40	1
CA-CB-CG	113.80	106.43	1
N-CA-C	111.00	90.44	1
CA-CB-CG	112.60	105.31	1
C-CA-CB	110.10	96.31	1
C-N-CA	121.70	134.75	1
N-CA-CB	111.50	99.17	1
N-CA-CB	110.50	122.79	1
N-CA-C	111.00	90.83	1
N-CA-C	111.00	90.84	1
N-CD-CG	103.20	113.99	1
CA-CB-CG	113.80	106.62	1
N-CA-C	111.00	131.02	1
CB-CG-CD	112.60	100.45	1
CA-C-O	120.80	108.72	1
C-N-CA	121.70	134.47	1
O-C-N	123.00	111.65	1
CA-CB-CG	113.80	106.74	1
C-CA-CB	110.10	123.41	1
N-CA-CB	110.50	122.34	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CA-CB-CG	113.80	106.85	1
N-CA-C	113.30	93.15	1
C-N-CA	121.70	134.19	1
C-N-CA	121.70	109.22	1
C-N-CA	121.70	109.38	1
N-CA-C	111.00	92.04	1
CA-C-N	116.20	129.73	1
N-CA-C	111.00	92.15	1
CB-CG-CD	112.60	101.17	1
CA-CB-CG	113.80	107.09	1
CA-CB-CG	112.60	105.94	1
CA-C-N	116.20	102.92	1
N-CA-C	111.00	92.59	1
C-N-CA	121.70	109.90	1
CA-CB-CG	113.80	107.25	1
C-N-CA	121.70	133.44	1
C-N-CA	121.70	133.42	1
N-CA-CB	111.50	122.57	1
CA-CB-CG	112.60	106.09	1
N-CA-CB	110.50	121.55	1
C-N-CA	121.70	133.40	1
CA-CB-CG	113.80	107.31	1
N-CA-C	111.00	92.89	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
N-CA-CB	110.50	121.49	1
N-CA-CB	110.50	121.42	1
C-CA-CB	110.10	122.23	1
C-N-CD	125.00	151.09	1
N-CA-CB	111.50	100.71	1
C-CA-CB	110.10	122.14	1
C-N-CA	121.70	110.32	1
N-CA-CB	110.50	121.21	1
CA-CB-CG	112.60	106.31	1
N-CA-C	113.30	95.10	1
CA-CB-CG	112.60	106.36	1
C-N-CA	121.70	132.92	1
C-N-CA	121.70	110.51	1
C-CA-CB	109.10	122.77	1
O-C-N	123.00	113.08	1
CA-CB-CG	113.80	107.61	1
CA-C-N	116.90	107.63	1
C-N-CA	121.70	132.74	1
CA-C-O	120.80	110.38	1
N-CA-C	111.00	93.86	1
CA-CB-CG	113.80	107.68	1
N-CA-CB	111.50	121.82	1
CG1-CB-CG2	110.80	124.08	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
C-CA-CB	110.10	98.65	1
CA-CB-CG	112.60	106.58	1
CA-CB-CG	112.60	106.62	1
C-CA-CB	110.10	121.42	1
N-CA-CB	110.50	100.45	1
N-CA-C	111.00	94.48	1
CA-CB-CG	113.80	107.92	1
C-N-CA	121.70	132.25	1
CA-CB-CG	112.60	106.76	1
CA-CB-CG	112.60	106.77	1
C-CA-CB	110.10	99.03	1
C-N-CA	121.70	111.24	1
C-N-CA	121.70	111.30	1
CA-CB-CG	112.60	106.91	1
C-CA-CB	109.10	96.60	1
N-CA-CB	110.50	120.11	1
O-C-N	123.00	114.00	1
C-N-CA	121.70	131.81	1
CA-CB-CG	113.80	108.21	1
CA-CB-CG	112.60	107.01	1
N-CA-C	112.10	98.14	1
C-CA-CB	110.10	99.50	1
CA-C-N	116.20	127.34	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CA-CB-CG	113.80	108.23	1
CA-CB-CG	112.60	107.03	1
CA-CB-CG	112.60	107.05	1
CA-CB-CG	112.60	107.06	1
N-CA-CB	110.50	119.92	1
CA-C-N	116.90	125.20	1
CA-CB-CG	113.80	108.27	1
N-CA-C	111.00	95.57	1
N-CA-CB	111.50	120.85	1
CA-CB-CG	112.60	107.11	1
C-N-CA	121.70	111.82	1
N-CA-CB	110.50	119.81	1
C-N-CA	121.70	111.86	1
C-CA-CB	111.60	100.73	1
N-CA-C	111.00	95.81	1
CA-CB-CG	112.60	107.18	1
C-N-CA	121.70	111.98	1
CA-CB-CG	114.10	124.90	1
CA-C-N	116.90	108.80	1
CA-CB-CG2	110.50	101.33	1
C-CA-CB	110.10	99.88	1
CA-CB-CG	112.60	107.23	1
CA-CB-CG	113.80	108.49	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
C-CA-CB	110.10	100.02	1
O-C-N	123.00	114.52	1
CB-CG-CD	111.30	123.47	1
C-CA-CB	110.10	100.09	1
C-N-CA	121.70	131.18	1
CA-CB-CG	112.60	107.35	1
CA-CB-CG	113.80	108.55	1
N-CA-C	113.30	98.08	1
C-CA-CB	111.40	101.43	1
O-C-N	123.00	114.63	1
CA-CB-CG	113.80	108.57	1
C-CA-CB	110.10	100.16	1
C-N-CD	125.00	103.62	1
C-N-CA	121.70	131.08	1
CA-CB-CG	112.60	107.40	1
CA-CB-CG	113.80	108.61	1
N-CA-C	112.10	99.14	1
C-N-CA	121.70	112.38	1
CA-CB-CG	112.60	107.43	1
N-CA-C	111.00	125.41	1
CA-CB-CG	112.60	107.46	1
C-N-CA	121.70	130.95	1
N-CA-CB	110.50	119.23	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CA-CB-CG	112.60	107.47	1
C-N-CA	121.70	130.94	1
C-N-CA	121.70	112.47	2
N-CA-C	113.30	98.46	1
CA-C-O	120.80	131.53	1
CA-CB-CG	113.90	104.72	1
C-CA-CB	111.60	101.41	1
O-C-N	123.00	114.85	1
C-CA-CB	110.50	102.87	1
N-CA-CB	110.50	101.87	1
O-C-N	123.00	114.88	1
C-N-CA	121.70	112.58	1
CA-CB-CG	112.60	107.53	1
N-CA-C	111.00	125.13	1
C-N-CA	121.70	112.65	1
CA-CB-CG	113.90	104.86	1
CA-CB-CG	113.80	108.78	1
CA-C-O	120.80	112.26	1
C-N-CA	121.70	130.73	1
CA-CB-CG	112.60	107.59	1
C-N-CA	121.70	130.71	1
C-N-CA	121.70	112.71	1
CA-CB-CG	112.60	107.61	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CA-CB-CG	113.80	108.81	1
CA-CB-CG	113.80	108.82	1
C-CA-CB	110.10	119.54	1
CA-CB-CG	113.80	108.84	1
CA-CB-CG	112.60	107.66	1
N-CA-C	111.00	97.19	1
CA-CB-CG	112.60	107.67	1
C-N-CA	121.70	112.84	1
N-CA-C	113.30	99.05	1
N-CA-C	111.00	97.24	1
CA-CB-CG	114.10	104.28	1
CA-C-O	120.80	112.45	1
C-N-CA	121.70	112.87	1
CA-CB-CG	112.60	107.69	1
N-CD-CG	103.20	110.54	1
CA-CB-CG	112.60	107.71	1
CA-CB-CG	112.60	107.72	1
CA-CB-CG	113.90	105.12	1
C-N-CA	121.70	112.95	1
CA-CB-CG	112.60	107.76	2
C-CA-CB	110.10	100.92	1
N-CA-CB	110.50	118.70	1
CA-C-N	116.20	106.59	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
C-CA-CB	110.10	100.97	1
C-N-CA	121.70	113.07	1
C-CA-CB	110.10	101.01	1
CA-C-N	116.20	106.63	1
CA-CB-CG	112.60	107.82	1
C-CA-CB	110.10	101.03	1
N-CA-C	111.00	124.36	1
N-CA-CB	110.50	118.61	1
C-N-CA	121.70	113.13	1
CA-CB-CG	112.60	107.84	1
CA-CB-CG	112.60	107.85	4
N-CA-C	111.00	97.75	1
N-CA-C	111.00	97.76	1
CA-CB-CG	112.60	107.87	1
C-CA-CB	111.60	102.16	1
O-C-N	123.00	130.55	1
CB-CG-CD	112.60	104.59	1
C-CA-CB	110.10	101.15	1
C-N-CA	121.70	113.22	1
CA-CB-CG	112.60	107.89	1
C-N-CA	121.70	130.16	1
C-CA-CB	110.10	101.18	1
CB-CG-CD	112.60	104.64	2

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CA-C-N	116.20	125.56	1
CA-CB-CG	112.60	107.93	2
CA-CB-CG	113.90	105.50	1
C-N-CA	121.70	113.30	2
CA-CB-CG	113.80	109.13	1
C-N-CA	121.70	113.31	2
C-N-CA	121.70	130.06	1
O-C-N	123.00	130.43	1
N-CA-C	113.30	99.87	1
C-N-CD	125.00	106.02	1
CB-CG-CD	106.10	91.28	1
N-CA-C	111.00	123.94	1
N-CA-CB	110.50	118.36	1
CA-CB-CG	113.80	109.21	1
CA-CB-CG	112.60	108.02	1
CA-CB-CG	112.60	108.03	1
N-CA-CB	110.50	118.26	1
CA-CB-CG	112.60	108.04	1
CA-CB-CG	112.60	108.05	1
CA-CB-CG	112.60	108.06	1
N-CA-CB	111.50	119.23	1
CD2-NE2-CE1	109.00	104.46	2
N-CA-CB	111.50	119.20	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CA-CB-CG	112.60	108.07	1
C-N-CA	121.70	113.56	1
CA-CB-CG	112.60	108.08	1
CD2-NE2-CE1	109.00	104.49	2
N-CA-C	111.00	123.62	1
CA-C-O	120.80	113.14	1
C-N-CA	121.70	113.60	1
CD2-NE2-CE1	109.00	104.50	1
CA-CB-CG	112.60	108.10	1
CD2-NE2-CE1	109.00	104.51	1
N-CA-C	111.00	98.44	1
CD2-NE2-CE1	109.00	104.52	1
CD2-NE2-CE1	109.00	104.53	2
C-CA-CB	110.10	101.60	1
N-CA-C	111.00	98.49	1
CB-CG-CD	112.60	105.01	1
CA-CB-CG	112.60	108.14	1
CD2-NE2-CE1	109.00	104.54	2
N-CA-CB	110.50	118.08	1
CB-CG-CD2	126.80	120.56	1
C-N-CA	121.70	129.71	1
CD2-NE2-CE1	109.00	104.56	1
CA-CB-CG	113.90	105.91	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CA-CB-CG	112.60	108.17	2
CD2-NE2-CE1	109.00	104.58	1
C-N-CA	121.70	113.77	1
CA-CB-CG	112.60	108.19	1
CD2-NE2-CE1	109.00	104.60	1
N-CA-C	111.00	98.70	1
CA-CB-CG	114.10	105.32	1
CA-C-N	116.20	107.42	1
C-N-CA	121.70	129.59	1
CA-C-N	116.20	124.96	1
N-CA-CB	110.50	117.94	1
CA-CB-CG	112.60	108.22	1
CD2-NE2-CE1	109.00	104.63	1
N-CA-C	111.00	98.78	1
C-N-CA	121.70	113.85	1
C-CA-CB	110.10	118.39	1
C-CA-CB	110.10	101.84	1
N-CA-C	112.10	101.23	1
C-CA-CB	110.10	101.85	2
C-N-CA	121.70	113.89	1
N-CA-CB	111.50	118.86	1
C-N-CA	121.70	113.91	1
CA-CB-CG	112.60	116.92	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
N-CA-C	111.00	98.91	1
C-N-CA	121.70	129.47	1
CD2-NE2-CE1	109.00	104.69	1
C-N-CA	121.70	113.94	1
C-N-CA	121.70	113.97	1
C-N-CA	121.70	114.00	2
O-C-N	123.00	116.15	1
N-CA-C	112.10	101.41	1
C-N-CA	121.70	129.39	1
CA-C-N	116.90	123.31	1
N-CA-C	112.10	122.77	1
CA-CB-CG	113.80	109.54	1
C-N-CA	121.70	129.36	1
CA-CB-CG	112.60	108.35	2
CA-CB-CG	113.80	109.55	1
C-N-CA	121.70	114.05	1
C-N-CA	121.70	129.34	1
CA-CB-CG	112.60	108.36	1
C-N-CA	121.70	114.08	1
CA-CB-CG	112.60	108.37	1
C-N-CA	121.70	129.32	1
C-N-CA	121.70	114.10	1
CA-CB-CG	112.60	108.38	2

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
N-CA-CB	111.50	104.33	1
C-N-CA	121.70	129.28	1
N-CA-C	111.00	99.21	1
CA-CB-CG	112.60	108.39	2
CA-C-O	120.80	113.65	2
CA-C-N	116.90	123.21	1
C-N-CA	121.70	114.13	1
CA-CB-CG	112.60	108.41	1
CA-C-O	120.80	127.92	1
CA-C-N	116.20	124.57	1
CA-CB-CG2	110.50	117.61	1
N-CA-CB	110.50	117.59	1
C-N-CA	121.70	114.20	1
N-CA-C	111.00	99.34	1
O-C-N	123.00	116.34	1
N-CA-C	111.00	99.36	1
N-CA-CB	110.50	103.44	1
CA-CB-CG	112.60	108.45	1
C-CA-CB	110.10	102.22	1
C-N-CA	121.70	129.16	1
CA-CB-CG1	110.40	103.37	1
N-CA-C	111.00	99.43	1
N-CA-C	112.10	122.41	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CA-CB-CG	113.90	106.49	1
C-N-CA	121.70	114.29	1
N-CA-C	111.00	99.48	1
N-CA-CB	103.00	107.52	1
C-CA-CB	110.10	102.29	1
N-CA-C	111.00	99.50	1
CA-CB-CG	112.60	108.49	1
C-N-CA	121.70	114.32	1
N-CA-C	111.00	99.54	1
N-CA-C	111.00	99.56	1
CA-CB-CG	113.80	109.72	1
C-N-CA	121.70	129.04	1
N-CA-C	111.00	99.59	1
C-N-CA	121.70	114.37	1
N-CA-C	111.00	122.38	2
CA-CB-CG	112.60	108.54	1
N-CA-CB	110.50	117.40	1
O-C-N	123.00	116.52	1
N-CA-CB	110.50	117.38	1
CG-SD-CE	100.90	92.04	1
N-CA-C	111.00	99.74	1
CB-CG-CD	112.60	105.78	1
CA-C-O	120.80	113.98	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
N-CA-C	111.00	99.78	1
CA-CB-CG1	110.40	103.59	1
N-CA-C	111.00	99.79	2
O-C-N	123.00	129.41	1
C-CA-CB	110.10	117.70	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
1	210.32	3074

All 3074 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	B:392:GLU:C	B:392:GLU:CA	1.538
1	A:392:GLU:C	A:392:GLU:CA	1.528
1	A:41:ARG:HD3	E:1:35G:N1	1.398
1	A:41:ARG:CD	E:1:35G:HN1	1.362
1	A:197:PHE:HB2	B:380:LEU:HD13	1.189
1	B:255:THR:CA	D:27:LYS:HA	1.186
1	A:110:PHE:CE1	E:1:35G:O1P	1.172
1	A:257:ASP:N	C:26:PRO:HD3	1.170
1	A:11:LEU:HD21	A:28:LYS:HE2	1.158
1	A:101:ILE:HG23	A:102:PRO:HA	1.153
1	B:29:THR:HG21	B:166:ILE:HG12	1.138
1	B:255:THR:HA	D:27:LYS:HA	1.132

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:210:ALA:HA	C:46:GLN:HG2	1.130
1	B:225:VAL:HG12	B:267:ILE:HG22	1.130
1	A:130:ILE:HG12	A:163:LEU:HD11	1.128
1	C:45:VAL:HG21	C:50:ASP:H	1.128
1	B:255:THR:HG23	D:26:PRO:HB2	1.125
1	A:120:TYR:HB2	C:3:GLU:HG3	1.123
1	A:22:MET:HG3	A:173:HIS:HB2	1.121
1	D:3:GLU:HG2	D:5:PRO:HD2	1.120
1	B:74:VAL:HA	B:78:LYS:HB2	1.117
1	B:361:ASP:H	B:364:ASP:HB2	1.116
1	A:126:MET:HE1	A:156:GLU:HG3	1.115
1	B:227:LEU:HB3	B:265:LYS:HB3	1.110
1	B:82:PHE:HZ	B:89:ALA:HB3	1.109
1	A:59:ARG:HA	A:78:LYS:HG3	1.106
1	B:228:LEU:HD21	B:261:VAL:HB	1.105
1	B:30:LEU:HD21	B:44:MET:HE3	1.100
1	A:361:ASP:H	A:364:ASP:HB3	1.098
1	A:43:SER:HA	A:60:LEU:HD12	1.095
1	B:188:MET:HE2	B:214:ILE:HA	1.095
1	B:63:VAL:HG13	B:67:SER:HB2	1.094
1	A:130:ILE:HG21	A:170:LEU:HD11	1.092
1	B:307:MET:HG2	B:312:ALA:HB3	1.092
1	A:64:THR:HG23	A:66:THR:H	1.091

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:295:PRO:HB3	B:348:VAL:HG11	1.090
1	A:258:GLY:HA2	A:297:TYR:HB2	1.089
1	A:307:MET:HB3	A:312:ALA:HB3	1.087
1	B:57:ALA:HB1	B:79:GLU:HB3	1.087
1	A:213:THR:HB	D:45:VAL:HA	1.084
1	A:61:LEU:HB2	A:72:ASN:HD22	1.079
1	B:258:GLY:HA2	B:297:TYR:HB2	1.075
1	A:230:MET:HE3	A:342:LYS:HE2	1.074
1	B:44:MET:H	B:60:LEU:HB3	1.073
1	B:122:THR:HA	F:1:35G:N3	1.071
1	A:26:VAL:HG13	A:166:ILE:HD11	1.068
1	A:385:TYR:HA	A:388:MET:HE2	1.067
1	A:79:GLU:HG3	C:11:THR:HG23	1.066
1	B:96:LYS:HE3	B:136:VAL:HG13	1.066
1	A:41:ARG:HD3	E:1:35G:C6	1.064
1	B:46:ILE:HG23	B:59:ARG:HB3	1.062
1	B:25:ILE:HG21	B:169:VAL:HG11	1.060
1	A:319:GLN:HB2	A:330:ILE:HB	1.057
1	B:213:THR:HB	C:46:GLN:HG3	1.057
1	A:63:VAL:HG13	A:67:SER:HB2	1.050
1	A:331:LYS:HG2	C:9:LEU:HB2	1.047
1	A:60:LEU:HD23	A:68:LYS:HG2	1.046
1	A:221:GLU:HG3	A:272:HIS:HB2	1.046

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:214:ILE:HG23	A:217:TYR:HD2	1.042
1	B:41:ARG:HD3	B:62:ASN:HB3	1.038
1	B:88:ILE:HD11	B:104:VAL:HG13	1.038
1	A:195:LYS:HB3	D:46:GLN:HB3	1.037
1	B:259:ARG:HB2	D:22:ARG:HB2	1.037
1	B:257:ASP:H	B:300:GLU:HB3	1.037
1	B:257:ASP:N	B:300:GLU:HB3	1.032
1	B:336:LEU:HB2	B:372:THR:HG21	1.032
1	A:295:PRO:HA	A:348:VAL:HG11	1.028
1	A:181:ILE:HD11	A:367:ILE:HG21	1.025
1	A:307:MET:HE2	A:333:VAL:HG22	1.023
1	A:92:VAL:HG11	A:139:VAL:HG21	1.019
1	A:286:ASP:HA	A:291:ILE:HD11	1.019
1	C:23:LYS:HG2	C:27:LYS:HE3	1.012
1	A:342:LYS:HB3	A:346:VAL:HG11	1.009
1	B:215:ARG:HG2	B:271:LEU:HD11	1.002
1	B:310:ALA:HB2	D:9:LEU:HD22	1.002
1	B:266:ILE:HD13	B:283:PRO:HG3	1.001
1	A:122:THR:HA	E:1:35G:N3	0.997
1	C:23:LYS:HD3	C:27:LYS:HG2	0.997
1	A:164:ASN:HB3	B:12:LEU:HD22	0.996
1	A:188:MET:HE2	A:371:LEU:HB2	0.996
1	B:191:TRP:CZ3	C:43:LYS:HA	0.992

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:37:LEU:HD11	A:151:PHE:CE1	0.991
1	A:213:THR:CB	D:45:VAL:HA	0.991
1	B:78:LYS:HA	B:78:LYS:HE3	0.989
1	B:299:ALA:HB1	B:345:ILE:HG21	0.987
1	B:221:GLU:HB2	B:352:TYR:CD2	0.986
1	B:295:PRO:HA	B:348:VAL:HG21	0.985
1	B:76:PRO:HD2	B:358:LYS:HG2	0.984
1	A:165:PHE:HA	B:12:LEU:HD11	0.981
1	A:322:PRO:HG3	A:329:VAL:HA	0.980
1	A:214:ILE:HG23	A:217:TYR:CD2	0.978
1	B:98:PHE:HD1	B:128:ILE:HG13	0.978
1	B:49:SER:HB2	B:362:GLU:HB3	0.977
1	A:299:ALA:HA	A:345:ILE:HD13	0.976
1	A:82:PHE:CE1	A:114:LEU:HA	0.973
1	B:82:PHE:CZ	B:89:ALA:HB3	0.973
1	A:59:ARG:HA	A:78:LYS:CG	0.971
1	A:59:ARG:CA	A:78:LYS:HG3	0.970
1	B:341:LYS:HD2	B:380:LEU:HD12	0.970
1	A:59:ARG:HB2	A:78:LYS:HE2	0.969
1	A:74:VAL:CB	A:78:LYS:HB3	0.969
1	A:215:ARG:HG3	A:271:LEU:HD21	0.968
1	B:80:THR:HA	D:15:PRO:HD2	0.968
1	A:311:PRO:HD3	C:17:GLY:HA3	0.967

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:57:ALA:HB1	A:79:GLU:CB	0.963
1	A:191:TRP:CB	D:45:VAL:HG13	0.961
1	B:259:ARG:HG2	D:25:PRO:HA	0.961
1	A:191:TRP:HB3	D:45:VAL:HG13	0.960
1	B:88:ILE:HD12	F:1:35G:O2P	0.958
1	A:299:ALA:CA	A:345:ILE:HG21	0.957
1	A:92:VAL:HG22	A:129:PRO:HG3	0.956
1	A:298:VAL:HG21	A:348:VAL:HG13	0.955
1	D:23:LYS:HB2	D:27:LYS:CA	0.951
1	A:195:LYS:HB3	D:46:GLN:CB	0.947
1	B:220:CYS:HB2	B:351:PHE:CZ	0.947
1	B:61:LEU:HG	B:62:ASN:H	0.946
1	A:292:SER:HB2	A:317:THR:HG23	0.945
1	A:259:ARG:HB2	C:25:PRO:HD3	0.944
1	B:56:VAL:HG11	B:82:PHE:CZ	0.943
1	A:298:VAL:HG13	A:313:ASP:HB3	0.942
1	C:9:LEU:HA	C:13:ASP:CB	0.942
1	A:341:LYS:HB3	A:380:LEU:HB2	0.941
1	A:308:MET:HE2	C:11:THR:HG21	0.940
1	A:341:LYS:HG2	A:380:LEU:HA	0.940
1	B:59:ARG:HG3	B:74:VAL:HG11	0.940
1	B:195:LYS:HA	C:49:GLY:CA	0.940
1	B:210:ALA:CA	C:46:GLN:HG2	0.940

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:308:MET:CE	D:16:THR:HG22	0.940
1	C:42:LYS:HA	C:42:LYS:HE2	0.940
1	A:195:LYS:HA	D:49:GLY:HA2	0.939
1	A:373:GLN:HG2	A:377:TRP:NE1	0.938
1	B:298:VAL:HG23	B:313:ASP:HB3	0.938
1	A:63:VAL:HG22	A:67:SER:HB3	0.937
1	A:334:LEU:HG	A:368:ILE:CD1	0.937
1	B:319:GLN:HG2	B:321:GLY:H	0.936
1	A:336:LEU:HD12	A:369:GLU:HA	0.932
1	B:57:ALA:HB1	B:79:GLU:CB	0.931
1	B:266:ILE:HG12	B:290:LEU:HD11	0.931
1	B:307:MET:HE2	B:333:VAL:HB	0.931
1	A:230:MET:CE	A:239:GLU:HB2	0.930
1	A:232:LYS:HD3	A:261:VAL:CG1	0.930
1	A:11:LEU:HD21	A:28:LYS:CE	0.929
1	A:57:ALA:HB1	A:79:GLU:HB2	0.929
1	B:207:PHE:HE2	B:211:LEU:HD23	0.929
1	A:184:ARG:HB3	A:217:TYR:CD1	0.926
1	A:295:PRO:HB3	A:348:VAL:HB	0.925
1	B:195:LYS:HD2	B:209:LYS:CB	0.924
1	B:287:HIS:HB3	B:290:LEU:HD13	0.924
1	B:294:LEU:HD21	B:335:SER:HB2	0.924
1	D:23:LYS:H	D:26:PRO:HA	0.923

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:79:GLU:CG	C:11:THR:HG23	0.922
1	A:130:ILE:HG21	A:170:LEU:CD1	0.921
1	A:79:GLU:HG3	C:11:THR:CG2	0.919
1	B:292:SER:HB3	B:315:TYR:HE2	0.919
1	B:207:PHE:CE2	B:211:LEU:HD23	0.918
1	A:303:PHE:HB2	C:30:GLN:H	0.917
1	A:373:GLN:HG2	A:377:TRP:HE1	0.916
1	B:30:LEU:HB3	B:42:CYS:SG	0.916
1	A:22:MET:HE1	A:59:ARG:HH22	0.915
1	A:68:LYS:H	A:72:ASN:HB2	0.915
1	A:288:TRP:CZ2	A:318:PHE:HB3	0.915
1	A:184:ARG:HB3	A:217:TYR:HD1	0.914
1	A:301:ASN:HA	C:27:LYS:C	0.913
1	A:178:LEU:HB3	B:179:TYR:CD1	0.912
1	B:184:ARG:HB3	B:217:TYR:CD2	0.912
1	A:33:LEU:HD22	A:162:TYR:HB2	0.910
1	B:189:LEU:HD11	B:370:THR:HG21	0.910
1	A:331:LYS:HD2	A:353:ASN:CB	0.909
1	A:96:LYS:HA	A:129:PRO:HG2	0.908
1	A:185:ARG:HG2	A:367:ILE:HB	0.907
1	B:22:MET:HE3	B:173:HIS:CD2	0.907
1	B:40:ASP:HB3	B:146:LEU:HD21	0.906
1	A:257:ASP:CG	A:261:VAL:HG22	0.905

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:336:LEU:CB	B:372:THR:HG21	0.905
1	A:197:PHE:CB	B:380:LEU:HD13	0.903
1	A:341:LYS:HB3	A:380:LEU:CB	0.902
1	A:84:LEU:H	A:84:LEU:HD22	0.901
1	A:190:LEU:HD13	A:194:ASN:HD21	0.901
1	A:257:ASP:H	A:300:GLU:HB3	0.901
1	A:307:MET:HB3	A:312:ALA:CB	0.901
1	A:319:GLN:CB	A:330:ILE:HB	0.901
1	A:319:GLN:HA	A:319:GLN:HE21	0.899
1	B:56:VAL:HG11	B:82:PHE:CE1	0.899
1	B:189:LEU:HD23	B:371:LEU:HD23	0.899
1	B:227:LEU:CB	B:265:LYS:HB3	0.899
1	B:294:LEU:HB2	B:315:TYR:CZ	0.899
1	C:16:THR:HG22	C:17:GLY:H	0.899
1	B:30:LEU:HD13	B:60:LEU:HD21	0.898
1	A:192:SER:N	D:45:VAL:HG22	0.896
1	A:308:MET:CE	C:11:THR:HG21	0.895
1	A:334:LEU:CD1	A:368:ILE:HG13	0.895
1	B:79:GLU:HB2	D:14:ALA:HB2	0.895
1	B:257:ASP:HB2	B:300:GLU:N	0.895
1	B:30:LEU:CD2	B:44:MET:HE3	0.894
1	B:74:VAL:HG13	B:78:LYS:HB3	0.892
1	B:313:ASP:CG	B:335:SER:HB3	0.892

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:207:PHE:CZ	B:225:VAL:HB	0.891
1	B:209:LYS:HA	C:47:GLY:HA2	0.891
1	B:308:MET:HG3	D:16:THR:H	0.891
1	B:341:LYS:HB2	B:380:LEU:CB	0.891
1	A:43:SER:CA	A:60:LEU:HD12	0.890
1	B:188:MET:HG3	B:214:ILE:HG23	0.889
1	B:184:ARG:HB3	B:217:TYR:CE2	0.888
1	B:307:MET:CG	B:312:ALA:HB3	0.888
1	B:213:THR:HB	C:46:GLN:CG	0.886
1	B:320:LYS:CD	B:350:THR:HG21	0.885
1	A:43:SER:HA	A:60:LEU:CD1	0.884
1	C:27:LYS:HB3	C:31:ARG:HG3	0.883
1	B:228:LEU:HD21	B:261:VAL:CB	0.882
1	B:340:ASN:HB3	B:342:LYS:N	0.882
1	A:299:ALA:CA	A:345:ILE:HD13	0.881
1	A:41:ARG:CG	A:143:LEU:HD12	0.878
1	B:304:ILE:HD11	B:334:LEU:HD11	0.878
1	B:86:ILE:H	B:86:ILE:HD13	0.877
1	A:74:VAL:HG12	A:78:LYS:HB3	0.876
1	A:313:ASP:CG	A:335:SER:HB2	0.876
1	A:196:VAL:HG22	A:206:GLN:HE21	0.874
1	B:44:MET:N	B:60:LEU:HB3	0.874
1	B:143:LEU:HG	B:144:ASN:H	0.874

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:209:LYS:HB3	C:47:GLY:HA3	0.874
1	B:295:PRO:HB3	B:348:VAL:CG1	0.874
1	A:135:GLU:HB3	A:137:LEU:HA	0.873
1	A:92:VAL:HG11	A:139:VAL:CG2	0.872
1	A:305:CYS:SG	A:312:ALA:HB1	0.872
1	B:79:GLU:C	D:14:ALA:HA	0.872
1	B:215:ARG:CG	B:271:LEU:HD11	0.872
1	B:259:ARG:HG3	B:260:GLU:H	0.872
1	A:182:GLU:CD	B:182:GLU:HB2	0.870
1	A:257:ASP:HB2	A:300:GLU:N	0.870
1	B:123:VAL:HG12	B:124:ASN:H	0.869
1	B:100:ASN:HD21	B:151:PHE:HB2	0.869
1	A:164:ASN:HB3	B:12:LEU:CD2	0.868
1	A:120:TYR:CB	C:3:GLU:HG3	0.868
1	B:27:HIS:CB	B:68:LYS:HB3	0.867
1	A:126:MET:CE	A:156:GLU:HG3	0.866
1	A:194:ASN:HA	A:197:PHE:CD2	0.866
1	B:297:TYR:CD2	B:314:GLU:HB2	0.866
1	B:341:LYS:HB2	B:380:LEU:CG	0.866
1	A:37:LEU:HD11	A:151:PHE:CZ	0.865
1	A:44:MET:H	A:60:LEU:HB3	0.865
1	B:256:PRO:HB3	D:28:PHE:HB2	0.865
1	B:361:ASP:N	B:364:ASP:HB2	0.865

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:137:LEU:HD23	A:170:LEU:HD12	0.864
1	B:188:MET:CE	B:214:ILE:HA	0.864
1	A:60:LEU:HD21	A:63:VAL:HG21	0.863
1	A:294:LEU:HD21	A:307:MET:SD	0.863
1	B:135:GLU:CD	B:137:LEU:HB2	0.863
1	B:191:TRP:CD1	B:213:THR:HG22	0.863
1	A:257:ASP:H	A:300:GLU:CB	0.862
1	B:195:LYS:HB3	C:46:GLN:C	0.862
1	B:228:LEU:HD11	B:261:VAL:HG11	0.862
1	A:188:MET:CG	A:371:LEU:HD13	0.860
1	C:45:VAL:HB	C:49:GLY:HA3	0.860
1	A:135:GLU:HB3	A:137:LEU:CB	0.858
1	A:307:MET:CB	A:312:ALA:HB3	0.858
1	B:330:ILE:HD11	B:333:VAL:HG23	0.858
1	A:82:PHE:CZ	A:114:LEU:HA	0.857
1	A:259:ARG:HD3	C:25:PRO:HG3	0.857
1	A:292:SER:CB	A:317:THR:HG23	0.857
1	A:74:VAL:CG1	A:78:LYS:HB3	0.856
1	A:267:ILE:HG22	A:279:VAL:HG23	0.856
1	B:195:LYS:HD2	B:209:LYS:HB3	0.856
1	B:287:HIS:CG	B:290:LEU:HD13	0.856
1	C:28:PHE:O	C:30:GLN:HA	0.856
1	B:75:ASN:HB3	B:77:ASP:H	0.855

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:191:TRP:C	C:46:GLN:HB2	0.855
1	B:394:ARG:HB2	B:394:ARG:HH11	0.855
1	A:228:LEU:HD21	A:263:PHE:CZ	0.854
1	A:319:GLN:HB3	A:322:PRO:HG2	0.854
1	C:9:LEU:HD13	C:13:ASP:CB	0.853
1	A:63:VAL:HG22	A:67:SER:CB	0.852
1	B:135:GLU:HB2	B:137:LEU:HD23	0.852
1	B:259:ARG:HB2	D:22:ARG:CB	0.852
1	B:287:HIS:CB	B:290:LEU:HD13	0.852
1	B:74:VAL:HA	B:78:LYS:CB	0.851
1	A:59:ARG:CB	A:78:LYS:HE2	0.850
1	A:361:ASP:N	A:364:ASP:HB3	0.850
1	A:209:LYS:HB3	D:46:GLN:HA	0.849
1	B:74:VAL:CA	B:78:LYS:HB2	0.849
1	B:76:PRO:CD	B:358:LYS:HG2	0.849
1	A:76:PRO:C	A:78:LYS:HD3	0.848
1	A:191:TRP:HA	D:44:GLY:HA2	0.848
1	A:288:TRP:CE2	A:323:VAL:HG13	0.848
1	A:297:TYR:CE2	C:26:PRO:HB3	0.848
1	B:292:SER:HB3	B:315:TYR:CE2	0.847
1	A:195:LYS:HB2	D:49:GLY:N	0.845
1	A:300:GLU:HB3	C:26:PRO:CD	0.845
1	B:288:TRP:CD1	B:323:VAL:HB	0.845

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:307:MET:CE	B:333:VAL:HB	0.845
1	A:22:MET:HE2	A:173:HIS:HB3	0.844
1	A:213:THR:HB	D:45:VAL:CA	0.844
1	A:314:GLU:CG	C:20:THR:HB	0.844
1	B:22:MET:HG2	B:173:HIS:ND1	0.844
1	B:28:LYS:O	B:31:GLN:HG2	0.844
1	B:297:TYR:HB3	B:313:ASP:C	0.844
1	B:341:LYS:HB2	B:380:LEU:HB2	0.843
1	D:43:LYS:CB	D:50:ASP:HB2	0.843
1	A:220:CYS:O	A:271:LEU:HD12	0.842
1	B:228:LEU:HD13	B:229:ASP:N	0.841
1	B:255:THR:HA	D:27:LYS:CA	0.841
1	A:228:LEU:HD21	A:263:PHE:CE1	0.840
1	A:331:LYS:CG	C:9:LEU:HB2	0.840
1	B:342:LYS:HG2	B:346:VAL:HG11	0.840
1	A:101:ILE:HG23	A:102:PRO:CA	0.839
1	A:338:ILE:HG22	A:347:GLY:O	0.839
1	B:308:MET:HG2	B:309:ASN:H	0.839
1	A:60:LEU:CA	A:74:VAL:HG11	0.838
1	B:166:ILE:O	B:170:LEU:HD23	0.838
1	A:315:TYR:C	C:19:THR:HA	0.837
1	B:29:THR:HG21	B:166:ILE:CG1	0.837
1	A:15:ILE:HG21	B:168:LEU:HD13	0.836

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:132:GLN:OE1	A:135:GLU:HG3	0.836
1	A:337:PRO:HB3	A:345:ILE:HD12	0.836
1	B:22:MET:HG2	B:173:HIS:CG	0.836
1	B:135:GLU:HB2	B:137:LEU:CD2	0.836
1	B:188:MET:CG	B:214:ILE:HG23	0.836
1	B:195:LYS:HE3	B:210:ALA:HB2	0.835
1	A:178:LEU:O	A:181:ILE:HG22	0.834
1	A:197:PHE:HB3	B:377:TRP:HB2	0.834
1	A:380:LEU:O	A:384:THR:HG23	0.834
1	B:41:ARG:HD3	B:62:ASN:CB	0.834
1	A:225:VAL:O	A:266:ILE:HD12	0.833
1	B:256:PRO:CD	D:28:PHE:H	0.833
1	B:302:GLY:H	D:31:ARG:H	0.833
1	A:181:ILE:HD11	A:367:ILE:CG2	0.831
1	A:200:LEU:HD13	A:388:MET:HE1	0.831
1	B:37:LEU:HD13	B:155:ASP:HB2	0.831
1	B:41:ARG:CD	B:62:ASN:HB3	0.831
1	B:188:MET:HE2	B:214:ILE:CA	0.831
1	A:55:GLU:HB3	A:81:VAL:CG2	0.830
1	A:288:TRP:CE3	A:288:TRP:HA	0.830
1	A:299:ALA:HA	A:345:ILE:HG21	0.830
1	B:162:TYR:CE1	B:166:ILE:HD11	0.830
1	B:334:LEU:HB2	B:360:PHE:CD2	0.830

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:81:VAL:HG23	D:14:ALA:HB1	0.829
1	B:259:ARG:CG	D:26:PRO:HD3	0.828
1	B:159:PHE:CE2	B:163:LEU:HD21	0.827
1	B:299:ALA:HA	B:345:ILE:HG12	0.826
1	A:33:LEU:HD11	A:162:TYR:CD1	0.825
1	B:44:MET:HG2	B:140:VAL:HG22	0.825
1	B:184:ARG:HB3	B:217:TYR:CG	0.825
1	B:193:ALA:O	B:196:VAL:HG22	0.825
1	B:391:LEU:HD23	B:392:GLU:H	0.825
1	C:1:MET:HG2	C:2:SER:H	0.825
1	A:76:PRO:HA	A:78:LYS:HE3	0.824
1	A:297:TYR:HB3	A:313:ASP:C	0.824
1	A:126:MET:HE1	A:156:GLU:CG	0.823
1	A:130:ILE:CG1	A:163:LEU:HD11	0.823
1	A:274:LYS:H	A:274:LYS:HD2	0.823
1	A:268:ASP:OD2	A:278:LYS:HB3	0.823
1	B:44:MET:HG3	B:60:LEU:HD22	0.823
1	A:188:MET:CE	A:371:LEU:HB2	0.822
1	A:191:TRP:HA	D:44:GLY:CA	0.822
1	A:234:LYS:HD3	A:235:GLU:N	0.822
1	A:191:TRP:HB3	D:45:VAL:N	0.821
1	B:192:SER:O	B:196:VAL:HG13	0.821
1	B:225:VAL:HG12	B:267:ILE:CG2	0.821

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:192:SER:HA	C:46:GLN:HB2	0.820
1	B:341:LYS:HD2	B:380:LEU:CD1	0.820
1	D:23:LYS:HB2	D:27:LYS:H	0.820
1	A:185:ARG:HG2	A:367:ILE:CG1	0.819
1	A:256:PRO:CA	C:25:PRO:HB3	0.819
1	A:336:LEU:CD1	A:369:GLU:HA	0.819
1	B:317:THR:HG22	B:319:GLN:N	0.818
1	C:21:PRO:O	C:24:GLY:HA2	0.818
1	A:26:VAL:HG13	A:166:ILE:CD1	0.817
1	A:193:ALA:HA	A:374:PHE:CZ	0.817
1	B:295:PRO:CA	B:348:VAL:HG21	0.817
1	A:64:THR:HG23	A:66:THR:N	0.816
1	A:194:ASN:HB3	D:49:GLY:O	0.816
1	B:80:THR:CG2	B:114:LEU:HD21	0.816
1	A:190:LEU:HG	B:370:THR:HG23	0.815
1	A:41:ARG:CD	E:1:35G:N1	0.815
1	A:73:LEU:HD13	A:74:VAL:N	0.814
1	A:78:LYS:HG2	A:79:GLU:N	0.814
1	B:320:LYS:HD2	B:350:THR:HG21	0.814
1	A:185:ARG:HG2	A:367:ILE:CB	0.813
1	B:51:ASN:HB3	B:303:PHE:HE2	0.813
1	B:319:GLN:HB3	B:322:PRO:CG	0.813
1	A:27:HIS:CB	A:68:LYS:HB3	0.812

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:61:LEU:HB2	A:72:ASN:ND2	0.811
1	B:25:ILE:CG2	B:169:VAL:HG11	0.811
1	B:209:LYS:CA	C:47:GLY:HA2	0.811
1	B:362:GLU:HG3	B:363:TYR:H	0.811
1	D:11:THR:HA	D:13:ASP:O	0.811
1	A:25:ILE:HD12	A:26:VAL:N	0.810
1	A:60:LEU:HD11	A:63:VAL:HG23	0.810
1	A:59:ARG:HH21	A:137:LEU:HD21	0.810
1	B:12:LEU:O	B:15:ILE:HG22	0.810
1	B:37:LEU:HD13	B:155:ASP:CB	0.810
1	A:150:GLU:HG2	A:151:PHE:H	0.809
1	B:26:VAL:O	B:30:LEU:HG	0.809
1	B:185:ARG:HB3	B:367:ILE:HD12	0.809
1	A:230:MET:HE3	A:342:LYS:CE	0.808
1	A:297:TYR:CD2	A:314:GLU:HB2	0.808
1	B:127:ALA:CB	B:141:MET:HG2	0.808
1	A:123:VAL:HG12	A:124:ASN:H	0.806
1	A:300:GLU:HB3	C:26:PRO:HD2	0.806
1	B:26:VAL:O	B:29:THR:HG22	0.805
1	B:188:MET:SD	B:217:TYR:HB3	0.805
1	B:334:LEU:HD12	B:368:ILE:HG21	0.805
1	A:193:ALA:HB1	B:377:TRP:CD1	0.804
1	B:57:ALA:HA	B:80:THR:O	0.804

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:180:ASN:O	B:184:ARG:HG2	0.804
1	B:187:GLN:HA	B:190:LEU:CD2	0.804
1	A:135:GLU:HB3	A:137:LEU:CA	0.803
1	A:203:ILE:HD11	A:383:ASP:OD1	0.803
1	B:68:LYS:N	B:72:ASN:HB2	0.803
1	A:44:MET:HB3	A:60:LEU:CB	0.802
1	A:341:LYS:HG3	A:342:LYS:N	0.802
1	A:230:MET:CE	A:342:LYS:HE2	0.802
1	B:256:PRO:HD2	D:23:LYS:N	0.802
1	A:181:ILE:O	A:185:ARG:HG3	0.801
1	A:57:ALA:HA	A:80:THR:O	0.800
1	A:336:LEU:HD21	A:351:PHE:HE1	0.800
1	B:298:VAL:HG11	B:337:PRO:N	0.800
1	A:22:MET:CG	A:173:HIS:HB2	0.799
1	A:303:PHE:HB2	C:30:GLN:N	0.799
1	A:288:TRP:HZ2	A:318:PHE:HB3	0.799
1	B:326:THR:HB	B:328:TRP:CE3	0.799
1	C:45:VAL:HG11	C:49:GLY:C	0.799
1	A:92:VAL:HG22	A:129:PRO:CG	0.797
1	A:200:LEU:HD13	A:388:MET:CE	0.797
1	A:300:GLU:CA	C:26:PRO:HG2	0.797
1	A:334:LEU:HD13	A:335:SER:N	0.797
1	B:308:MET:CB	D:15:PRO:HA	0.797

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:336:LEU:HD21	B:368:ILE:HG22	0.797
1	C:9:LEU:HA	C:13:ASP:HA	0.797
1	C:40:PRO:HB2	C:41:PRO:HD3	0.797
1	D:23:LYS:HB2	D:27:LYS:CB	0.797
1	A:76:PRO:HA	A:78:LYS:CE	0.796
1	B:304:ILE:HD11	B:334:LEU:CD1	0.796
1	B:307:MET:HG2	B:312:ALA:CB	0.796
1	A:256:PRO:N	C:25:PRO:HB3	0.796
1	A:33:LEU:CD2	A:162:TYR:HB2	0.795
1	B:200:LEU:HB3	B:385:TYR:HB2	0.795
1	A:74:VAL:HA	A:78:LYS:HB3	0.794
1	A:234:LYS:HD3	A:235:GLU:H	0.794
1	B:59:ARG:HA	B:74:VAL:CG1	0.794
1	B:194:ASN:HA	B:197:PHE:CD2	0.794
1	B:206:GLN:HA	B:209:LYS:HD2	0.794
1	B:228:LEU:HD11	B:261:VAL:CG1	0.794
1	A:89:ALA:O	A:92:VAL:HG12	0.793
1	B:53:ILE:HG22	B:54:PRO:O	0.793
1	B:230:MET:HE3	B:239:GLU:HG3	0.793
1	A:101:ILE:HG21	A:125:MET:H	0.792
1	A:179:TYR:HA	A:182:GLU:CD	0.792
1	A:365:GLU:HA	A:368:ILE:CD1	0.792
1	B:63:VAL:CG1	B:67:SER:HB2	0.792

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:74:VAL:HG13	B:78:LYS:CB	0.791
1	B:184:ARG:HB3	B:217:TYR:CZ	0.791
1	B:256:PRO:HD2	D:23:LYS:H	0.791
1	A:132:GLN:HG2	A:135:GLU:H	0.790
1	B:228:LEU:HD21	B:261:VAL:CG1	0.790
1	B:294:LEU:HB2	B:315:TYR:OH	0.790
1	B:338:ILE:HG21	B:375:LEU:HD22	0.790
1	A:135:GLU:HG2	A:174:HIS:CG	0.789
1	A:242:ILE:HD12	A:341:LYS:HZ3	0.789
1	B:227:LEU:HB3	B:265:LYS:CB	0.789
1	B:22:MET:O	B:25:ILE:HG22	0.788
1	B:96:LYS:CE	B:136:VAL:HG13	0.788
1	B:287:HIS:O	B:291:ILE:HG13	0.788
1	C:28:PHE:H	C:31:ARG:N	0.788
1	A:244:LEU:H	A:244:LEU:HD23	0.787
1	A:307:MET:HE2	A:333:VAL:CG2	0.786
1	B:333:VAL:HG13	B:351:PHE:O	0.786
1	B:340:ASN:HB2	B:346:VAL:HG22	0.786
1	A:209:LYS:CB	D:46:GLN:HA	0.785
1	B:127:ALA:HB2	B:141:MET:HG2	0.785
1	B:192:SER:O	B:195:LYS:HG2	0.785
1	A:333:VAL:HG12	A:352:TYR:HA	0.784
1	B:59:ARG:HG3	B:74:VAL:CG1	0.784

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	C:10:THR:N	C:13:ASP:HA	0.784
1	A:41:ARG:HG3	A:62:ASN:OD1	0.783
1	A:192:SER:HA	D:46:GLN:HG3	0.783
1	B:105:LYS:HD2	B:106:LYS:N	0.783
1	B:255:THR:HA	D:26:PRO:C	0.783
1	A:59:ARG:HG2	A:78:LYS:HD2	0.782
1	B:79:GLU:CB	D:14:ALA:HB2	0.782
1	B:255:THR:HA	D:27:LYS:N	0.782
1	B:336:LEU:CD2	B:368:ILE:HG22	0.782
1	C:23:LYS:HD2	C:25:PRO:O	0.782
1	B:30:LEU:HD13	B:60:LEU:CD2	0.781
1	A:211:LEU:HD12	A:269:TYR:HB2	0.780
1	A:310:ALA:HB3	C:17:GLY:C	0.780
1	B:75:ASN:CB	B:77:ASP:H	0.780
1	B:103:ASP:CB	B:106:LYS:HD3	0.780
1	A:45:PHE:HB2	A:139:VAL:HG12	0.779
1	A:256:PRO:HB2	C:23:LYS:HB2	0.779
1	A:294:LEU:HG	A:313:ASP:HB2	0.779
1	B:192:SER:HB3	C:46:GLN:HE21	0.779
1	A:257:ASP:HA	A:259:ARG:O	0.778
1	B:198:GLU:HB3	C:49:GLY:HA2	0.778
1	B:211:LEU:HD12	B:212:TYR:N	0.778
1	A:185:ARG:HG2	A:367:ILE:HD12	0.777

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:288:TRP:CD2	A:323:VAL:HG13	0.777
1	A:319:GLN:CG	A:322:PRO:HD2	0.777
1	A:341:LYS:HD2	A:380:LEU:HD23	0.777
1	B:10:GLU:O	B:13:THR:HG22	0.777
1	A:215:ARG:HG3	A:271:LEU:CD2	0.776
1	A:331:LYS:HD2	A:353:ASN:HB2	0.776
1	B:98:PHE:CD1	B:128:ILE:HG13	0.776
1	A:26:VAL:CG1	A:166:ILE:HD11	0.775
1	A:182:GLU:CG	B:182:GLU:HB2	0.775
1	A:227:LEU:HB2	A:265:LYS:HB3	0.775
1	A:334:LEU:HD12	A:368:ILE:HG13	0.775
1	B:319:GLN:HB3	B:322:PRO:CD	0.775
1	D:3:GLU:HG2	D:5:PRO:CD	0.775
1	A:110:PHE:HE1	E:1:35G:O1P	0.775
1	A:41:ARG:HG2	E:1:35G:O6	0.774
1	A:74:VAL:CA	A:78:LYS:HB3	0.774
1	A:170:LEU:HD23	A:171:ARG:N	0.774
1	A:306:ASN:ND2	A:360:PHE:HB2	0.774
1	B:257:ASP:HA	B:259:ARG:O	0.774
1	A:257:ASP:HB3	A:296:THR:O	0.773
1	A:366:GLN:O	A:369:GLU:HG3	0.773
1	A:394:ARG:O	A:397:ILE:HG22	0.773
1	B:185:ARG:HB3	B:367:ILE:CG1	0.773

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:75:ASN:HB3	A:77:ASP:H	0.772
1	A:257:ASP:CA	C:26:PRO:HD3	0.772
1	B:294:LEU:HD21	B:335:SER:CB	0.772
1	A:225:VAL:HB	A:267:ILE:HG12	0.771
1	A:60:LEU:HD11	A:63:VAL:CG2	0.770
1	A:60:LEU:N	A:74:VAL:HG11	0.770
1	B:80:THR:HG21	B:114:LEU:HD21	0.770
1	B:310:ALA:HB1	B:317:THR:HB	0.770
1	B:189:LEU:CD2	B:371:LEU:HD23	0.769
1	A:218:LEU:HD13	A:220:CYS:SG	0.768
1	A:298:VAL:HG23	A:345:ILE:CD1	0.768
1	A:303:PHE:CB	C:30:GLN:H	0.768
1	A:310:ALA:HB3	C:17:GLY:CA	0.768
1	B:256:PRO:HB2	B:300:GLU:HB2	0.768
1	A:193:ALA:HB2	B:374:PHE:CE2	0.767
1	A:307:MET:HE3	A:309:ASN:O	0.767
1	B:221:GLU:O	B:271:LEU:HB2	0.767
1	C:9:LEU:CA	C:13:ASP:HA	0.767
1	A:75:ASN:CB	A:77:ASP:HB2	0.766
1	A:182:GLU:HB3	B:182:GLU:HB2	0.766
1	A:308:MET:HG3	C:11:THR:OG1	0.766
1	B:261:VAL:HG12	B:262:ASN:H	0.766
1	B:225:VAL:CG1	B:267:ILE:HG22	0.766

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:217:TYR:CE1	A:367:ILE:HD11	0.765
1	A:229:ASP:O	A:232:LYS:HG2	0.765
1	B:265:LYS:O	B:266:ILE:HD12	0.765
1	B:306:ASN:HB2	B:365:GLU:CD	0.765
1	D:11:THR:HG22	D:15:PRO:CD	0.765
1	A:336:LEU:HG	A:372:THR:HB	0.764
1	A:179:TYR:HA	A:182:GLU:OE2	0.763
1	A:190:LEU:CG	B:370:THR:HG23	0.763
1	B:21:SER:O	B:24:LYS:HG2	0.763
1	A:194:ASN:HA	A:197:PHE:CE2	0.762
1	B:184:ARG:HB3	B:217:TYR:CD1	0.762
1	B:351:PHE:CZ	B:360:PHE:HZ	0.762
1	C:9:LEU:HD13	C:13:ASP:HB3	0.762
1	B:336:LEU:HD13	B:372:THR:CG2	0.761
1	A:122:THR:C	E:1:35G:O2'	0.760
1	A:227:LEU:CB	A:265:LYS:HB3	0.760
1	B:26:VAL:HG13	B:44:MET:HE1	0.760
1	B:195:LYS:CE	B:210:ALA:HB2	0.760
1	D:43:LYS:HA	D:50:ASP:HB2	0.760
1	A:29:THR:HG22	A:162:TYR:HD1	0.759
1	A:209:LYS:C	D:46:GLN:HA	0.759
1	A:341:LYS:CB	A:380:LEU:HD23	0.759
1	B:135:GLU:CG	B:137:LEU:HB2	0.759

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:266:ILE:CD1	B:283:PRO:HG3	0.759
1	B:294:LEU:HD13	B:320:LYS:HD2	0.759
1	D:23:LYS:HB2	D:27:LYS:N	0.759
1	A:135:GLU:HB3	A:137:LEU:HB2	0.758
1	B:25:ILE:O	B:25:ILE:HD13	0.758
1	B:59:ARG:CG	B:74:VAL:HG11	0.758
1	B:105:LYS:HD2	B:106:LYS:H	0.758
1	A:365:GLU:HA	A:368:ILE:HD11	0.757
1	B:132:GLN:HB3	B:135:GLU:HG2	0.757
1	B:121:THR:O	F:1:35G:N3	0.757
1	A:132:GLN:CG	A:135:GLU:H	0.756
1	B:63:VAL:HG13	B:67:SER:CB	0.756
1	B:257:ASP:O	B:296:THR:HG23	0.756
1	A:299:ALA:CB	A:345:ILE:HG21	0.755
1	B:12:LEU:O	B:12:LEU:HD23	0.755
1	B:256:PRO:C	D:26:PRO:HB3	0.755
1	A:207:PHE:CZ	A:379:VAL:HG11	0.754
1	B:69:PHE:O	B:73:LEU:HB3	0.754
1	A:137:LEU:HD22	A:170:LEU:HB2	0.753
1	A:146:LEU:HD13	A:147:ASN:N	0.753
1	A:256:PRO:HB3	A:300:GLU:OE1	0.753
1	A:341:LYS:HD2	A:380:LEU:CD2	0.753
1	B:55:GLU:HG3	B:81:VAL:HG11	0.753

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:300:GLU:OE1	C:26:PRO:HD2	0.753
1	C:45:VAL:HG21	C:50:ASP:N	0.753
1	A:155:ASP:O	A:158:VAL:HG12	0.752
1	A:295:PRO:O	A:298:VAL:HG22	0.752
1	B:42:CYS:SG	B:63:VAL:HB	0.752
1	B:336:LEU:HD11	B:368:ILE:CG2	0.752
1	D:32:GLN:HE21	D:38:SER:HA	0.752
1	A:7:ILE:HA	A:10:GLU:OE2	0.751
1	A:49:SER:HB3	A:362:GLU:HB2	0.751
1	A:130:ILE:CG2	A:170:LEU:HD11	0.751
1	A:266:ILE:HG23	A:280:ILE:HG12	0.751
1	A:295:PRO:O	A:348:VAL:HG21	0.751
1	B:88:ILE:CD1	B:104:VAL:HG13	0.750
1	A:114:LEU:HD12	E:1:35G:O5'	0.749
1	C:22:ARG:HA	C:24:GLY:CA	0.749
1	A:82:PHE:CD2	A:114:LEU:HD22	0.748
1	A:194:ASN:C	D:49:GLY:HA2	0.748
1	A:195:LYS:HG2	A:209:LYS:HD2	0.748
1	A:311:PRO:HD3	C:17:GLY:CA	0.748
1	A:342:LYS:HB3	A:346:VAL:CG1	0.748
1	A:377:TRP:O	A:380:LEU:HB3	0.748
1	B:299:ALA:CA	B:345:ILE:HG12	0.748
1	A:33:LEU:HD11	A:162:TYR:CE1	0.747

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:44:MET:N	A:60:LEU:HB3	0.747
1	B:228:LEU:CD1	B:232:LYS:HE2	0.747
1	B:394:ARG:HB2	B:394:ARG:NH1	0.747
1	A:208:HIS:HA	A:211:LEU:CD2	0.746
1	A:229:ASP:OD2	A:262:ASN:HB3	0.746
1	B:30:LEU:HD21	B:44:MET:CE	0.746
1	B:44:MET:HB2	B:59:ARG:O	0.746
1	B:137:LEU:HG	B:170:LEU:HD12	0.746
1	B:330:ILE:HD11	B:333:VAL:CG2	0.746
1	A:331:LYS:HE2	C:9:LEU:CG	0.745
1	A:334:LEU:HG	A:368:ILE:HG13	0.745
1	A:185:ARG:HH12	A:366:GLN:HG2	0.745
1	A:210:ALA:CA	D:46:GLN:HG2	0.744
1	B:326:THR:HB	B:328:TRP:CZ3	0.744
1	B:375:LEU:O	B:375:LEU:HD23	0.744
1	A:69:PHE:O	A:73:LEU:HB2	0.743
1	A:83:PRO:HG2	A:86:ILE:HD12	0.743
1	B:195:LYS:HD2	B:209:LYS:HB2	0.743
1	A:41:ARG:HG2	A:143:LEU:HD12	0.742
1	A:151:PHE:HE2	A:156:GLU:HA	0.742
1	A:196:VAL:HG13	A:206:GLN:HE22	0.742
1	B:299:ALA:CB	B:345:ILE:HG21	0.742
1	B:308:MET:HE1	D:16:THR:HG22	0.742

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:308:MET:HB3	D:15:PRO:HA	0.741
1	B:49:SER:HB2	B:362:GLU:CB	0.740
1	B:159:PHE:O	B:163:LEU:HD23	0.740
1	D:37:LYS:HB3	D:41:PRO:HD3	0.740
1	A:60:LEU:HD23	A:68:LYS:CG	0.739
1	C:39:LYS:HB2	C:40:PRO:HD3	0.739
1	A:137:LEU:HB3	A:170:LEU:HD11	0.738
1	A:230:MET:HE2	A:239:GLU:HB2	0.738
1	A:297:TYR:HB3	A:313:ASP:O	0.738
1	A:341:LYS:HB3	A:380:LEU:CG	0.738
1	A:392:GLU:C	A:392:GLU:N	0.738
1	A:393:ASN:HB2	B:396:ASP:OD2	0.738
1	B:68:LYS:H	B:72:ASN:HB2	0.738
1	B:135:GLU:HB2	B:137:LEU:HA	0.738
1	B:155:ASP:O	B:158:VAL:HG12	0.738
1	A:294:LEU:HD23	A:335:SER:OG	0.737
1	A:314:GLU:HB3	C:20:THR:HB	0.737
1	A:96:LYS:CA	A:129:PRO:HG2	0.736
1	A:188:MET:HB2	A:217:TYR:CE2	0.736
1	A:191:TRP:C	D:45:VAL:H	0.736
1	A:331:LYS:HE2	C:9:LEU:HB2	0.736
1	A:340:ASN:HB3	A:342:LYS:O	0.736
1	A:369:GLU:O	A:372:THR:HG22	0.736

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:132:GLN:HG2	B:133:GLY:H	0.736
1	B:182:GLU:O	B:185:ARG:HG2	0.736
1	C:23:LYS:CB	C:25:PRO:HB2	0.736
1	A:205:ARG:O	A:209:LYS:HG2	0.735
1	A:334:LEU:HG	A:368:ILE:CG1	0.735
1	B:196:VAL:HG21	B:377:TRP:CZ2	0.735
1	B:293:GLY:O	B:296:THR:HG22	0.735
1	B:319:GLN:HB2	B:330:ILE:HB	0.735
1	A:258:GLY:H	C:26:PRO:N	0.735
1	A:196:VAL:HG12	A:381:ASN:HD22	0.734
1	C:5:PRO:HB2	C:14:ALA:HB1	0.734
1	A:120:TYR:HB2	C:3:GLU:CG	0.733
1	A:266:ILE:HG23	A:280:ILE:CD1	0.733
1	B:41:ARG:HA	B:63:VAL:O	0.733
1	B:51:ASN:HB3	B:303:PHE:CE2	0.733
1	B:299:ALA:HA	B:345:ILE:CG1	0.733
1	B:336:LEU:HD22	B:369:GLU:HA	0.733
1	A:151:PHE:HE2	A:156:GLU:CA	0.732
1	B:319:GLN:CG	B:321:GLY:H	0.732
1	B:255:THR:N	D:27:LYS:HA	0.732
1	A:188:MET:HB2	A:217:TYR:CD2	0.731
1	A:263:PHE:HE1	A:296:THR:HG22	0.731
1	A:203:ILE:HG23	A:207:PHE:HE2	0.730

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:257:ASP:HB2	A:300:GLU:HA	0.730
1	A:331:LYS:HE2	C:9:LEU:CB	0.730
1	B:184:ARG:HB3	B:217:TYR:CE1	0.730
1	B:286:ASP:OD1	B:291:ILE:HD11	0.730
1	B:226:GLY:O	B:347:GLY:HA2	0.730
1	A:97:LYS:HB2	A:99:PHE:CE2	0.729
1	A:331:LYS:HE2	C:9:LEU:HG	0.729
1	B:256:PRO:HB2	B:300:GLU:CB	0.729
1	B:387:LYS:O	B:391:LEU:HD22	0.729
1	D:43:LYS:HA	D:50:ASP:CB	0.729
1	A:130:ILE:HD11	A:140:VAL:CG2	0.728
1	B:392:GLU:C	B:392:GLU:N	0.728
1	B:77:ASP:HA	D:13:ASP:HA	0.727
1	B:101:ILE:HG22	B:125:MET:O	0.726
1	A:79:GLU:O	C:11:THR:HG22	0.726
1	A:224:SER:HB2	A:266:ILE:HD11	0.725
1	B:124:ASN:OD1	B:144:ASN:HA	0.725
1	B:257:ASP:OD1	B:261:VAL:HG22	0.725
1	C:27:LYS:CB	C:31:ARG:HG3	0.725
1	B:255:THR:CG2	D:26:PRO:HB2	0.725
1	A:215:ARG:HE	A:271:LEU:HD22	0.724
1	A:336:LEU:CG	A:372:THR:HB	0.724
1	A:336:LEU:HD12	A:372:THR:CG2	0.724

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:194:ASN:HA	B:197:PHE:CE2	0.724
1	B:266:ILE:CG1	B:290:LEU:HD11	0.724
1	B:299:ALA:CB	B:345:ILE:HG12	0.724
1	A:274:LYS:HE2	A:326:THR:HB	0.723
1	A:338:ILE:HG23	A:346:VAL:HG22	0.723
1	B:336:LEU:HD13	B:372:THR:HG21	0.723
1	B:340:ASN:HB2	B:346:VAL:CG2	0.723
1	A:68:LYS:O	A:73:LEU:HA	0.722
1	A:76:PRO:CD	A:358:LYS:HE2	0.722
1	B:135:GLU:HG3	B:137:LEU:N	0.722
1	A:44:MET:HB3	A:60:LEU:HB2	0.721
1	B:58:THR:O	B:78:LYS:HB3	0.721
1	B:227:LEU:HD13	B:228:LEU:N	0.721
1	A:294:LEU:HD22	A:320:LYS:HZ3	0.720
1	A:336:LEU:CD1	A:372:THR:HB	0.720
1	B:56:VAL:HG12	B:82:PHE:O	0.720
1	B:256:PRO:HB3	D:28:PHE:CB	0.720
1	C:10:THR:HG22	C:14:ALA:H	0.720
1	A:27:HIS:HB2	A:68:LYS:HB3	0.719
1	A:299:ALA:HA	A:345:ILE:CD1	0.719
1	B:68:LYS:O	B:73:LEU:HA	0.719
1	B:169:VAL:HA	B:172:ASN:ND2	0.719
1	A:135:GLU:OE2	A:170:LEU:HG	0.718

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:256:PRO:HB2	C:25:PRO:C	0.718
1	A:301:ASN:HA	C:27:LYS:O	0.718
1	B:185:ARG:HB3	B:367:ILE:CD1	0.718
1	B:189:LEU:HD21	B:370:THR:HG22	0.718
1	B:204:GLU:HB2	B:265:LYS:NZ	0.718
1	A:76:PRO:HG2	A:358:LYS:HG3	0.717
1	A:334:LEU:HD12	A:336:LEU:HD22	0.717
1	A:337:PRO:CB	A:345:ILE:HD12	0.717
1	B:187:GLN:O	B:190:LEU:HD23	0.717
1	B:256:PRO:CG	D:28:PHE:H	0.717
1	C:9:LEU:HA	C:13:ASP:CA	0.717
1	A:76:PRO:HA	A:78:LYS:CD	0.716
1	A:77:ASP:C	C:12:GLY:H	0.716
1	A:191:TRP:HB2	D:45:VAL:HG13	0.716
1	B:218:LEU:HD21	B:223:TYR:CD1	0.716
1	B:302:GLY:O	B:337:PRO:HG3	0.716
1	D:43:LYS:HA	D:50:ASP:OD2	0.716
1	A:179:TYR:CD1	B:178:LEU:HB3	0.715
1	A:209:LYS:HB3	D:46:GLN:CA	0.715
1	B:294:LEU:HA	B:315:TYR:CE1	0.715
1	A:82:PHE:CG	A:114:LEU:HD22	0.714
1	A:122:THR:CA	E:1:35G:N3	0.714
1	A:125:MET:HE2	A:127:ALA:HB2	0.714

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:210:ALA:HA	D:46:GLN:N	0.714
1	A:341:LYS:CD	A:380:LEU:HD23	0.714
1	B:41:ARG:HH11	B:62:ASN:CB	0.714
1	B:310:ALA:HB2	D:9:LEU:CD2	0.714
1	A:190:LEU:CD1	A:194:ASN:HD21	0.713
1	A:190:LEU:HD13	A:194:ASN:ND2	0.713
1	B:266:ILE:HD13	B:283:PRO:CG	0.713
1	A:340:ASN:ND2	A:342:LYS:H	0.713
1	A:22:MET:HG3	A:173:HIS:CB	0.712
1	A:96:LYS:HA	A:129:PRO:CG	0.712
1	A:208:HIS:O	A:211:LEU:HD23	0.712
1	B:213:THR:CB	C:46:GLN:HG3	0.712
1	A:78:LYS:HZ3	A:79:GLU:HB3	0.711
1	B:194:ASN:CB	C:45:VAL:HA	0.711
1	B:269:TYR:CD2	B:277:ILE:HD12	0.711
1	B:306:ASN:HB2	B:365:GLU:CG	0.711
1	A:292:SER:HB2	A:317:THR:CG2	0.710
1	B:128:ILE:HG22	B:129:PRO:O	0.710
1	B:319:GLN:HG2	B:321:GLY:N	0.710
1	D:43:LYS:CA	D:50:ASP:HB2	0.710
1	A:179:TYR:HA	A:182:GLU:CG	0.709
1	B:188:MET:HE3	B:191:TRP:CD1	0.709
1	B:222:ARG:CZ	B:270:ILE:HD12	0.709

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:297:TYR:HB3	B:313:ASP:O	0.709
1	A:218:LEU:HB2	A:220:CYS:SG	0.708
1	B:96:LYS:HA	B:129:PRO:HG3	0.708
1	A:145:LYS:HD2	A:148:ALA:HB2	0.707
1	A:167:SER:O	A:170:LEU:HD22	0.707
1	A:182:GLU:HA	B:182:GLU:OE2	0.707
1	A:182:GLU:HB3	B:182:GLU:HG3	0.707
1	A:288:TRP:HA	A:288:TRP:HE3	0.707
1	A:331:LYS:CD	C:9:LEU:HB2	0.707
1	B:135:GLU:HB2	B:137:LEU:CB	0.707
1	B:257:ASP:HB2	B:300:GLU:H	0.707
1	A:60:LEU:CD1	A:63:VAL:HG23	0.706
1	A:75:ASN:HB2	A:77:ASP:HB2	0.706
1	B:222:ARG:O	B:352:TYR:HB2	0.706
1	A:104:VAL:HG21	E:1:35G:O2'	0.705
1	A:182:GLU:CA	B:182:GLU:HG3	0.705
1	A:232:LYS:HD3	A:261:VAL:HG11	0.705
1	A:310:ALA:HA	A:330:ILE:HD11	0.705
1	A:336:LEU:HD11	A:368:ILE:O	0.705
1	B:388:MET:HA	B:391:LEU:CD2	0.705
1	A:185:ARG:HG2	A:367:ILE:CD1	0.704
1	A:206:GLN:HB2	A:382:THR:HG21	0.704
1	B:46:ILE:HG21	B:59:ARG:HD3	0.704

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:11:LEU:O	A:14:GLU:HG2	0.703
1	A:63:VAL:CG1	A:67:SER:HB2	0.703
1	A:98:PHE:HD1	A:128:ILE:HG12	0.703
1	A:130:ILE:HB	A:138:ALA:H	0.703
1	A:137:LEU:HB3	A:170:LEU:CD1	0.703
1	A:311:PRO:CD	C:17:GLY:HA3	0.703
1	B:190:LEU:HG	B:191:TRP:CE3	0.703
1	B:192:SER:CA	C:46:GLN:HB2	0.703
1	A:319:GLN:CG	A:330:ILE:HB	0.702
1	A:319:GLN:HB3	A:322:PRO:CG	0.702
1	B:96:LYS:CA	B:129:PRO:HG3	0.702
1	B:214:ILE:HG13	C:46:GLN:CD	0.702
1	B:336:LEU:CG	B:372:THR:HG21	0.702
1	A:340:ASN:ND2	A:379:VAL:HG23	0.701
1	B:334:LEU:HD12	B:336:LEU:HD11	0.701
1	B:392:GLU:C	B:392:GLU:CB	0.701
1	C:45:VAL:HB	C:49:GLY:CA	0.701
1	A:70:GLU:HG2	A:71:ASP:N	0.700
1	A:336:LEU:CD2	A:351:PHE:HE1	0.700
1	B:140:VAL:HB	B:163:LEU:HD11	0.700
1	B:308:MET:CG	D:16:THR:H	0.700
1	A:22:MET:O	A:25:ILE:HG13	0.699
1	A:135:GLU:HB3	A:137:LEU:CD1	0.699

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:178:LEU:O	A:182:GLU:HG3	0.699
1	A:191:TRP:CA	D:45:VAL:H	0.699
1	B:220:CYS:HB2	B:351:PHE:CE1	0.699
1	B:221:GLU:HB2	B:352:TYR:HD2	0.699
1	B:193:ALA:HB2	B:374:PHE:CZ	0.698
1	B:246:GLU:HA	D:29:LYS:NZ	0.698
1	A:30:LEU:CD1	A:60:LEU:HG	0.697
1	C:27:LYS:HG3	C:31:ARG:NE	0.697
1	A:227:LEU:HB2	A:265:LYS:CB	0.696
1	B:101:ILE:HD11	B:107:ASN:CG	0.696
1	B:256:PRO:CD	D:27:LYS:N	0.696
1	B:306:ASN:ND2	B:360:PHE:HB2	0.696
1	C:9:LEU:HD13	C:13:ASP:HB2	0.696
1	C:23:LYS:HB2	C:25:PRO:C	0.696
1	A:28:LYS:O	A:31:GLN:HG2	0.695
1	A:135:GLU:C	A:137:LEU:HA	0.695
1	A:385:TYR:HA	A:388:MET:CE	0.695
1	B:27:HIS:HB2	B:68:LYS:HB3	0.695
1	B:294:LEU:HB3	B:295:PRO:HD3	0.695
1	C:23:LYS:HB2	C:25:PRO:O	0.695
1	A:53:ILE:HD11	A:55:GLU:OE2	0.694
1	A:189:LEU:HD23	A:370:THR:HG22	0.694
1	A:302:GLY:C	C:29:LYS:HA	0.694

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:303:PHE:HB2	C:30:GLN:CB	0.694
1	A:334:LEU:CG	A:368:ILE:HG13	0.694
1	A:340:ASN:CG	A:342:LYS:HB3	0.694
1	B:336:LEU:HD11	B:368:ILE:HG21	0.694
1	B:302:GLY:H	D:31:ARG:N	0.694
1	A:44:MET:HB3	A:60:LEU:HB3	0.693
1	A:203:ILE:HG21	A:227:LEU:CD1	0.693
1	A:331:LYS:HG2	C:9:LEU:CB	0.693
1	B:26:VAL:HG22	B:170:LEU:HD21	0.693
1	B:308:MET:HG3	D:16:THR:N	0.693
1	A:393:ASN:OD1	B:396:ASP:HB3	0.693
1	B:301:ASN:HD21	B:303:PHE:HB3	0.692
1	A:181:ILE:O	A:181:ILE:HD13	0.691
1	A:206:GLN:HE21	A:378:SER:HB2	0.691
1	B:137:LEU:CD1	B:170:LEU:HD12	0.691
1	B:256:PRO:HB2	B:300:GLU:CD	0.691
1	D:23:LYS:HE2	D:28:PHE:HE1	0.691
1	A:197:PHE:HB3	B:377:TRP:CE3	0.690
1	A:213:THR:CA	D:45:VAL:HA	0.690
1	A:299:ALA:HB1	A:345:ILE:HG21	0.690
1	B:59:ARG:HG3	B:74:VAL:CB	0.690
1	B:1:ARG:HG2	B:2:LEU:H	0.689
1	B:308:MET:HG3	D:15:PRO:CA	0.689

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	D:43:LYS:HA	D:50:ASP:CG	0.689
1	A:197:PHE:CD2	B:377:TRP:HB2	0.688
1	B:55:GLU:HG3	B:81:VAL:CG1	0.688
1	B:96:LYS:C	B:129:PRO:HG3	0.688
1	B:191:TRP:HB3	C:46:GLN:HA	0.688
1	A:27:HIS:HB2	A:67:SER:O	0.687
1	A:185:ARG:CG	A:367:ILE:HD12	0.687
1	A:200:LEU:HD12	B:388:MET:HE3	0.687
1	A:228:LEU:HD23	A:263:PHE:CG	0.687
1	A:298:VAL:HG21	A:348:VAL:CG1	0.687
1	A:338:ILE:HG23	A:346:VAL:CG2	0.687
1	B:319:GLN:HB3	B:322:PRO:HG3	0.687
1	B:336:LEU:HD21	B:368:ILE:CG2	0.687
1	C:27:LYS:HD3	C:31:ARG:HG3	0.687
1	B:75:ASN:H	B:77:ASP:HB2	0.686
1	B:80:THR:HB	B:118:THR:CG2	0.686
1	B:137:LEU:CG	B:170:LEU:HD12	0.686
1	B:257:ASP:HB2	B:300:GLU:CA	0.686
1	B:319:GLN:CB	B:330:ILE:HB	0.686
1	B:359:PRO:HB3	D:13:ASP:OD1	0.686
1	A:101:ILE:CG2	A:125:MET:H	0.685
1	B:256:PRO:CB	D:28:PHE:HB2	0.685
1	B:342:LYS:HB3	B:346:VAL:CG2	0.685

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:29:THR:CG2	A:162:TYR:HD1	0.684
1	A:319:GLN:HG3	A:322:PRO:HD2	0.684
1	B:299:ALA:HB1	B:345:ILE:CG2	0.684
1	B:79:GLU:O	D:14:ALA:HA	0.684
1	A:60:LEU:HD21	A:63:VAL:CG2	0.683
1	B:59:ARG:CG	B:74:VAL:HG21	0.683
1	B:270:ILE:CG2	B:276:GLU:HG2	0.683
1	B:308:MET:HG3	D:15:PRO:CB	0.683
1	B:338:ILE:HD13	B:375:LEU:HD22	0.683
1	A:135:GLU:OE1	A:171:ARG:HA	0.682
1	A:338:ILE:HD11	A:375:LEU:C	0.682
1	B:105:LYS:CD	B:106:LYS:HG3	0.682
1	B:294:LEU:CD1	B:333:VAL:HG11	0.682
1	C:27:LYS:CG	C:31:ARG:HG3	0.682
1	C:27:LYS:HG3	C:31:ARG:HE	0.682
1	A:215:ARG:NE	A:271:LEU:HD22	0.681
1	B:342:LYS:HB3	B:346:VAL:HG22	0.681
1	C:22:ARG:O	C:23:LYS:HD2	0.681
1	A:256:PRO:HA	A:300:GLU:HB3	0.680
1	B:162:TYR:CD2	B:163:LEU:HD22	0.680
1	A:195:LYS:HG2	D:48:PHE:HB2	0.679
1	B:230:MET:CE	B:342:LYS:HD2	0.679
1	B:391:LEU:HD23	B:392:GLU:N	0.679

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	C:22:ARG:HB3	C:22:ARG:NH1	0.679
1	A:213:THR:C	D:45:VAL:HG12	0.678
1	A:239:GLU:HG2	A:240:TRP:O	0.678
1	A:221:GLU:CG	A:272:HIS:HB2	0.678
1	A:280:ILE:H	A:280:ILE:HD13	0.678
1	A:314:GLU:CB	C:20:THR:HB	0.678
1	A:338:ILE:HG22	A:347:GLY:C	0.678
1	B:60:LEU:HD21	B:63:VAL:HG21	0.678
1	D:23:LYS:CB	D:27:LYS:H	0.678
1	A:227:LEU:HG	A:265:LYS:HE3	0.677
1	B:228:LEU:CD2	B:261:VAL:HB	0.677
1	B:340:ASN:HB3	B:342:LYS:H	0.677
1	B:359:PRO:HB3	D:13:ASP:CG	0.677
1	A:261:VAL:HG12	A:262:ASN:H	0.676
1	A:380:LEU:HD22	A:384:THR:HG23	0.676
1	A:182:GLU:OE2	B:179:TYR:HA	0.676
1	C:27:LYS:HB3	C:31:ARG:CG	0.676
1	D:23:LYS:CA	D:27:LYS:H	0.676
1	B:59:ARG:CB	B:74:VAL:HG11	0.675
1	C:6:THR:HG22	C:15:PRO:CB	0.675
1	A:340:ASN:HD22	A:341:LYS:N	0.675
1	B:55:GLU:HB2	B:81:VAL:CG1	0.674
1	B:105:LYS:HD2	B:106:LYS:HG3	0.674

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:126:MET:HE3	B:159:PHE:CD2	0.674
1	B:137:LEU:HD13	B:138:ALA:HB2	0.674
1	B:192:SER:HA	C:46:GLN:CB	0.674
1	B:310:ALA:CB	D:9:LEU:HD22	0.674
1	B:239:GLU:OE2	B:342:LYS:HE3	0.674
1	A:25:ILE:CD1	A:169:VAL:HG21	0.673
1	A:189:LEU:CD2	A:374:PHE:HB2	0.673
1	A:218:LEU:O	A:218:LEU:HD12	0.673
1	B:50:ARG:HG2	B:55:GLU:OE1	0.673
1	B:204:GLU:HB2	B:265:LYS:HZ3	0.673
1	B:269:TYR:CE2	B:277:ILE:HD12	0.673
1	B:308:MET:SD	D:16:THR:HG22	0.673
1	A:25:ILE:HD13	A:169:VAL:HG21	0.672
1	A:195:LYS:CG	D:48:PHE:HB2	0.672
1	A:197:PHE:HB3	B:377:TRP:HE3	0.672
1	A:222:ARG:O	A:352:TYR:HB2	0.672
1	B:198:GLU:HB3	C:49:GLY:CA	0.672
1	B:301:ASN:OD1	D:31:ARG:HB3	0.672
1	A:76:PRO:CG	A:358:LYS:HE2	0.671
1	A:269:TYR:CE2	A:277:ILE:HG22	0.671
1	B:46:ILE:HD13	B:59:ARG:HD2	0.671
1	A:135:GLU:CB	A:137:LEU:HA	0.670
1	A:308:MET:HG3	C:11:THR:CB	0.670

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:9:PHE:HE1	B:161:LYS:HG2	0.670
1	B:363:TYR:HA	B:366:GLN:HG3	0.670
1	A:195:LYS:CD	D:48:PHE:HB2	0.669
1	A:256:PRO:C	C:26:PRO:HD3	0.669
1	B:294:LEU:HD11	B:333:VAL:HG11	0.669
1	A:41:ARG:HA	A:63:VAL:O	0.668
1	A:227:LEU:CG	A:265:LYS:HB3	0.668
1	A:396:ASP:HA	A:399:GLN:HG2	0.668
1	B:71:ASP:HA	D:1:MET:N	0.668
1	B:194:ASN:HB2	C:45:VAL:HA	0.668
1	B:295:PRO:HA	B:348:VAL:CG2	0.668
1	B:300:GLU:HG3	B:301:ASN:N	0.668
1	A:196:VAL:HG13	A:206:GLN:NE2	0.667
1	A:206:GLN:O	A:209:LYS:HB2	0.667
1	A:287:HIS:O	A:291:ILE:HG12	0.667
1	B:41:ARG:HH11	B:62:ASN:HB2	0.667
1	C:28:PHE:H	C:31:ARG:H	0.667
1	B:96:LYS:HE3	B:136:VAL:CG1	0.666
1	B:191:TRP:HB2	C:46:GLN:CD	0.666
1	A:182:GLU:CB	B:182:GLU:HG3	0.665
1	B:319:GLN:HG2	B:320:LYS:N	0.665
1	B:336:LEU:HB2	B:372:THR:CG2	0.665
1	A:256:PRO:HA	A:300:GLU:CB	0.664

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:74:VAL:HB	B:75:ASN:O	0.664
1	A:47:CYS:SG	A:56:VAL:HG12	0.663
1	A:210:ALA:HA	D:46:GLN:H	0.663
1	A:266:ILE:CG2	A:280:ILE:HG12	0.663
1	B:57:ALA:HB1	B:79:GLU:CG	0.663
1	B:256:PRO:HD3	D:23:LYS:HB2	0.663
1	B:336:LEU:N	B:336:LEU:HD12	0.663
1	C:23:LYS:HZ3	C:23:LYS:N	0.663
1	A:295:PRO:HB3	A:348:VAL:CB	0.662
1	A:298:VAL:CG1	A:313:ASP:HB3	0.662
1	A:319:GLN:CD	A:320:LYS:H	0.662
1	B:193:ALA:HB2	B:374:PHE:HZ	0.662
1	B:207:PHE:CE1	B:375:LEU:HD11	0.662
1	B:333:VAL:HG11	B:350:THR:HG23	0.662
1	A:76:PRO:O	A:79:GLU:HG2	0.661
1	A:179:TYR:HA	A:182:GLU:HG3	0.661
1	A:256:PRO:HB3	A:300:GLU:CD	0.661
1	B:336:LEU:CD2	B:369:GLU:HA	0.661
1	D:32:GLN:NE2	D:38:SER:HA	0.661
1	A:73:LEU:HD13	A:74:VAL:C	0.660
1	A:137:LEU:CD2	A:170:LEU:HD12	0.660
1	A:207:PHE:CD1	A:225:VAL:HG11	0.660
1	B:78:LYS:CA	B:78:LYS:HE3	0.660

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:74:VAL:HA	A:78:LYS:CB	0.659
1	A:303:PHE:CB	C:30:GLN:HB2	0.659
1	B:26:VAL:CG1	B:68:LYS:HD2	0.659
1	B:375:LEU:O	B:379:VAL:HG23	0.659
1	A:266:ILE:HG23	A:280:ILE:CG1	0.658
1	B:341:LYS:HB2	B:380:LEU:HG	0.658
1	C:27:LYS:CD	C:31:ARG:HG3	0.658
1	C:9:LEU:C	C:13:ASP:HA	0.657
1	A:2:LEU:O	A:2:LEU:HD23	0.656
1	A:190:LEU:HD21	B:373:GLN:HB3	0.656
1	A:310:ALA:HB1	A:317:THR:HB	0.656
1	A:328:TRP:CD1	A:352:TYR:HE2	0.656
1	B:40:ASP:HB3	B:146:LEU:CD2	0.656
1	B:302:GLY:N	D:31:ARG:H	0.656
1	A:53:ILE:HG13	A:55:GLU:HG3	0.655
1	A:163:LEU:HD12	A:166:ILE:CG2	0.655
1	A:165:PHE:CA	B:12:LEU:HD11	0.655
1	B:30:LEU:HA	B:162:TYR:CE1	0.655
1	B:46:ILE:HG23	B:59:ARG:CB	0.655
1	B:174:HIS:NE2	B:178:LEU:HD21	0.655
1	B:256:PRO:CG	D:23:LYS:HG2	0.655
1	B:308:MET:HG2	B:309:ASN:N	0.655
1	A:73:LEU:HD11	A:75:ASN:HA	0.654

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:340:ASN:OD1	A:346:VAL:HG11	0.654
1	B:101:ILE:HD11	B:107:ASN:OD1	0.654
1	B:270:ILE:HG21	B:276:GLU:HG2	0.654
1	B:305:CYS:HB2	B:313:ASP:OD1	0.654
1	D:23:LYS:CB	D:27:LYS:HB2	0.654
1	A:3:GLU:OE2	A:4:GLU:HG2	0.653
1	A:232:LYS:HD3	A:261:VAL:HG13	0.653
1	B:70:GLU:O	B:73:LEU:HD22	0.653
1	B:191:TRP:HB3	B:213:THR:HG21	0.653
1	B:240:TRP:NE1	B:244:LEU:HD13	0.653
1	B:319:GLN:HE22	B:329:VAL:HA	0.653
1	C:10:THR:HG22	C:14:ALA:N	0.653
1	B:259:ARG:HH21	D:22:ARG:HG3	0.653
1	B:394:ARG:O	B:397:ILE:HG13	0.652
1	B:222:ARG:H	B:352:TYR:HB3	0.651
1	A:29:THR:O	A:33:LEU:HG	0.650
1	A:46:ILE:CD1	A:137:LEU:HD11	0.650
1	A:125:MET:CE	A:127:ALA:HB2	0.650
1	B:181:ILE:HD12	B:363:TYR:HD1	0.650
1	B:189:LEU:CD2	B:370:THR:HG22	0.650
1	B:232:LYS:HE3	B:344:GLU:OE2	0.650
1	B:259:ARG:HG3	B:260:GLU:N	0.650
1	B:340:ASN:HD21	B:379:VAL:HG11	0.650

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:256:PRO:HG2	C:23:LYS:HB3	0.648
1	A:383:ASP:HB3	A:387:LYS:HZ1	0.648
1	B:60:LEU:HD12	B:68:LYS:HA	0.648
1	B:288:TRP:NE1	B:323:VAL:HB	0.648
1	B:361:ASP:H	B:364:ASP:CB	0.648
1	A:322:PRO:HG3	A:329:VAL:CA	0.647
1	A:331:LYS:CE	C:9:LEU:HB2	0.647
1	A:5:CYS:SG	B:5:CYS:HB2	0.647
1	B:67:SER:HB3	B:72:ASN:CG	0.647
1	B:228:LEU:HD23	B:263:PHE:CE1	0.647
1	B:258:GLY:CA	B:297:TYR:HD2	0.647
1	B:338:ILE:HD13	B:375:LEU:CD2	0.647
1	A:4:GLU:O	A:7:ILE:HG22	0.646
1	A:59:ARG:HD2	A:59:ARG:O	0.646
1	A:195:LYS:HD3	D:48:PHE:CB	0.646
1	B:11:LEU:HD22	B:25:ILE:HD11	0.646
1	B:246:GLU:HG2	B:246:GLU:O	0.646
1	B:297:TYR:HB3	B:314:GLU:N	0.646
1	A:76:PRO:HG2	A:358:LYS:CD	0.645
1	A:123:VAL:HG12	A:124:ASN:N	0.645
1	A:203:ILE:CG2	A:227:LEU:HD11	0.645
1	A:334:LEU:HG	A:368:ILE:HD11	0.645
1	B:27:HIS:HB3	B:68:LYS:HB3	0.645

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:188:MET:HG3	B:214:ILE:HG12	0.645
1	A:361:ASP:H	A:364:ASP:CB	0.644
1	A:44:MET:HB3	A:59:ARG:O	0.643
1	A:227:LEU:HG	A:265:LYS:HB3	0.643
1	B:63:VAL:HA	B:67:SER:OG	0.643
1	B:83:PRO:HB2	B:86:ILE:CD1	0.643
1	B:206:GLN:O	B:209:LYS:HB2	0.643
1	B:269:TYR:HD1	B:271:LEU:HD22	0.643
1	A:182:GLU:HB3	B:182:GLU:CB	0.642
1	A:294:LEU:HG	A:312:ALA:O	0.642
1	B:135:GLU:CB	B:137:LEU:HD23	0.642
1	A:196:VAL:CG1	A:381:ASN:HD22	0.641
1	A:314:GLU:CD	C:20:THR:HB	0.641
1	B:195:LYS:HA	C:49:GLY:HA2	0.641
1	A:68:LYS:N	A:72:ASN:HB2	0.640
1	A:56:VAL:O	A:81:VAL:HG23	0.640
1	B:344:GLU:HG3	B:346:VAL:HG13	0.640
1	C:42:LYS:CA	C:42:LYS:HE2	0.640
1	A:396:ASP:HB3	B:393:ASN:OD1	0.639
1	B:213:THR:CB	C:46:GLN:HA	0.639
1	B:256:PRO:HD3	D:23:LYS:CB	0.639
1	B:259:ARG:HG2	D:26:PRO:HD3	0.639
1	B:307:MET:HE2	B:333:VAL:CB	0.639

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	C:9:LEU:HA	C:13:ASP:HB2	0.639
1	A:213:THR:HG21	D:43:LYS:HG2	0.638
1	B:33:LEU:O	B:33:LEU:HD13	0.638
1	A:182:GLU:CB	B:182:GLU:HB2	0.638
1	B:336:LEU:CD1	B:372:THR:HG21	0.638
1	A:75:ASN:CB	A:77:ASP:H	0.637
1	A:196:VAL:HG22	A:206:GLN:NE2	0.637
1	B:22:MET:SD	B:23:GLU:HG3	0.637
1	B:188:MET:HG3	B:214:ILE:CG2	0.637
1	B:294:LEU:C	B:294:LEU:HD23	0.637
1	C:5:PRO:HB2	C:14:ALA:CB	0.637
1	A:257:ASP:O	A:297:TYR:HA	0.636
1	A:345:ILE:O	A:345:ILE:HG23	0.636
1	B:228:LEU:HD22	B:262:ASN:O	0.636
1	A:57:ALA:HB1	A:79:GLU:HB3	0.635
1	B:297:TYR:CG	B:314:GLU:HB2	0.635
1	B:362:GLU:HG3	B:363:TYR:N	0.635
1	D:23:LYS:HB2	D:27:LYS:HB2	0.635
1	A:22:MET:HE1	A:59:ARG:NH2	0.634
1	A:78:LYS:NZ	A:79:GLU:HB3	0.634
1	A:118:THR:HG23	A:120:TYR:H	0.634
1	A:179:TYR:CA	A:182:GLU:HG3	0.634
1	A:257:ASP:N	A:300:GLU:HB3	0.634

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:340:ASN:OD1	A:346:VAL:HG21	0.634
1	B:330:ILE:O	D:8:ASN:HB3	0.634
1	A:195:LYS:HD3	D:48:PHE:HB2	0.633
1	A:197:PHE:CB	B:377:TRP:HB2	0.633
1	B:256:PRO:HD3	D:27:LYS:CA	0.633
1	B:297:TYR:CE1	B:301:ASN:HB3	0.633
1	B:298:VAL:HG21	B:335:SER:OG	0.633
1	A:198:GLU:OE1	B:341:LYS:HE3	0.633
1	B:4:GLU:O	B:7:ILE:HG12	0.632
1	B:64:THR:HG22	B:65:PRO:N	0.632
1	B:80:THR:HG23	B:114:LEU:HD21	0.632
1	B:340:ASN:HB3	B:342:LYS:CB	0.632
1	A:186:SER:CB	B:185:ARG:HE	0.631
1	A:194:ASN:HB3	D:49:GLY:C	0.631
1	A:210:ALA:HA	D:46:GLN:HG2	0.631
1	A:392:GLU:C	A:392:GLU:CB	0.631
1	B:166:ILE:HG22	B:170:LEU:HD23	0.631
1	B:189:LEU:CD1	B:370:THR:HG21	0.631
1	B:193:ALA:HA	B:374:PHE:CE1	0.631
1	B:306:ASN:HB2	B:365:GLU:HG2	0.631
1	A:74:VAL:HA	A:78:LYS:CA	0.630
1	A:242:ILE:HD12	A:341:LYS:NZ	0.630
1	B:228:LEU:CD1	B:261:VAL:HG11	0.630

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	C:27:LYS:HA	C:27:LYS:HE2	0.630
1	A:73:LEU:C	A:74:VAL:HG13	0.629
1	A:200:LEU:CD1	B:388:MET:HE3	0.629
1	B:60:LEU:HD11	B:63:VAL:HG21	0.629
1	B:143:LEU:HG	B:144:ASN:N	0.629
1	B:261:VAL:HG12	B:262:ASN:N	0.629
1	A:101:ILE:HD11	A:104:VAL:HA	0.628
1	A:130:ILE:HD11	A:140:VAL:HG21	0.628
1	B:59:ARG:HG2	B:74:VAL:HG21	0.628
1	B:130:ILE:HD12	B:140:VAL:HG23	0.628
1	B:257:ASP:CA	B:300:GLU:HB3	0.628
1	B:294:LEU:HB3	B:320:LYS:HZ2	0.628
1	B:302:GLY:HA3	D:30:GLN:HB2	0.628
1	B:340:ASN:HB3	B:342:LYS:CA	0.628
1	C:6:THR:O	C:14:ALA:HB2	0.628
1	A:298:VAL:HA	A:301:ASN:OD1	0.627
1	B:195:LYS:HB3	C:46:GLN:O	0.627
1	B:228:LEU:HD12	B:232:LYS:HE2	0.627
1	B:298:VAL:CG2	B:313:ASP:HB3	0.627
1	C:16:THR:HG22	C:17:GLY:N	0.627
1	D:23:LYS:HE2	D:28:PHE:CE1	0.627
1	A:203:ILE:HG23	A:207:PHE:CE2	0.626
1	B:60:LEU:N	B:74:VAL:HG22	0.626

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:182:GLU:HG2	B:182:GLU:O	0.626
1	B:258:GLY:HA2	B:297:TYR:CB	0.626
1	A:393:ASN:HB2	B:396:ASP:CG	0.625
1	B:59:ARG:HA	B:74:VAL:HG13	0.625
1	D:45:VAL:HG23	D:46:GLN:N	0.625
1	A:84:LEU:N	A:84:LEU:HD22	0.624
1	A:182:GLU:HB3	B:182:GLU:CG	0.624
1	A:266:ILE:HG21	A:283:PRO:HB3	0.624
1	A:377:TRP:HA	A:377:TRP:HE3	0.624
1	B:135:GLU:HB2	B:137:LEU:CA	0.624
1	A:310:ALA:N	C:17:GLY:HA3	0.624
1	B:60:LEU:HD11	B:63:VAL:CG2	0.623
1	B:132:GLN:HE22	B:175:THR:HG23	0.623
1	B:350:THR:HG22	B:351:PHE:O	0.623
1	B:217:TYR:HE2	B:367:ILE:HD11	0.623
1	A:214:ILE:HG13	D:45:VAL:HG21	0.622
1	A:256:PRO:HB3	C:26:PRO:HD2	0.622
1	B:61:LEU:HG	B:62:ASN:N	0.622
1	B:67:SER:C	B:69:PHE:H	0.622
1	B:203:ILE:HD13	B:379:VAL:HG13	0.622
1	D:43:LYS:HD3	D:43:LYS:N	0.622
1	B:332:ASN:HD22	B:333:VAL:N	0.622
1	A:29:THR:HG22	A:162:TYR:CD1	0.621

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:209:LYS:C	D:46:GLN:CA	0.621
1	B:56:VAL:HG11	B:82:PHE:CE2	0.621
1	B:122:THR:HB	B:143:LEU:HD11	0.621
1	B:295:PRO:CB	B:348:VAL:HG21	0.621
1	B:334:LEU:CD1	B:336:LEU:HG	0.621
1	A:7:ILE:O	A:10:GLU:HG2	0.620
1	A:50:ARG:HG3	A:306:ASN:OD1	0.620
1	A:270:ILE:HD11	A:275:GLU:N	0.620
1	A:188:MET:SD	A:371:LEU:HD13	0.620
1	B:68:LYS:H	B:72:ASN:CB	0.620
1	B:215:ARG:HG3	B:269:TYR:HE1	0.620
1	B:294:LEU:HD11	B:333:VAL:CG1	0.620
1	D:23:LYS:N	D:26:PRO:HA	0.620
1	A:319:GLN:CB	A:322:PRO:HG2	0.619
1	B:319:GLN:NE2	B:329:VAL:HA	0.619
1	B:366:GLN:O	B:369:GLU:HG2	0.619
1	A:5:CYS:HB2	B:5:CYS:SG	0.618
1	A:101:ILE:HG21	A:125:MET:N	0.618
1	A:104:VAL:HA	A:107:ASN:OD1	0.618
1	A:221:GLU:HG3	A:272:HIS:CB	0.618
1	A:320:LYS:HB2	A:352:TYR:CD1	0.618
1	B:46:ILE:HD11	B:79:GLU:OE2	0.618
1	B:304:ILE:HD13	B:305:CYS:N	0.618

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:259:ARG:HH12	D:25:PRO:HG3	0.618
1	A:32:ARG:CZ	A:36:LEU:HD21	0.617
1	A:56:VAL:O	A:81:VAL:HA	0.617
1	A:163:LEU:O	A:166:ILE:HG22	0.617
1	A:196:VAL:HG22	A:378:SER:HB2	0.617
1	A:340:ASN:CG	A:346:VAL:HG11	0.617
1	B:257:ASP:CG	B:261:VAL:HG22	0.617
1	B:319:GLN:HB3	B:322:PRO:HD3	0.617
1	A:259:ARG:CB	C:25:PRO:HD3	0.617
1	A:70:GLU:HG2	A:71:ASP:H	0.616
1	A:95:THR:HB	A:97:LYS:HG2	0.616
1	A:193:ALA:HB1	B:377:TRP:NE1	0.616
1	A:270:ILE:O	A:270:ILE:HD12	0.616
1	A:303:PHE:CA	C:30:GLN:H	0.616
1	B:98:PHE:CZ	B:156:GLU:HG3	0.616
1	B:126:MET:HE1	B:159:PHE:CB	0.616
1	A:203:ILE:HG21	A:227:LEU:HD11	0.615
1	A:257:ASP:HB2	A:300:GLU:CA	0.615
1	B:187:GLN:HB3	B:191:TRP:CZ2	0.615
1	B:27:HIS:HB2	B:67:SER:O	0.614
1	B:123:VAL:HG12	B:124:ASN:N	0.614
1	B:189:LEU:HD11	B:370:THR:CG2	0.614
1	A:22:MET:HE2	A:173:HIS:CB	0.613

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:46:ILE:HD11	A:137:LEU:HD11	0.613
1	A:384:THR:O	A:388:MET:HG2	0.613
1	B:114:LEU:O	B:114:LEU:HD13	0.613
1	B:135:GLU:CB	B:137:LEU:HA	0.613
1	B:162:TYR:O	B:166:ILE:HG13	0.613
1	B:295:PRO:CB	B:348:VAL:HG11	0.613
1	A:84:LEU:CD2	A:84:LEU:H	0.613
1	A:74:VAL:HG12	A:78:LYS:CB	0.612
1	A:135:GLU:CG	A:137:LEU:HD13	0.612
1	A:341:LYS:HB3	A:380:LEU:HD23	0.612
1	A:77:ASP:OD1	A:359:PRO:HD3	0.612
1	B:62:ASN:C	B:72:ASN:HD21	0.612
1	A:114:LEU:O	A:118:THR:HG22	0.611
1	A:137:LEU:HD22	A:170:LEU:HG	0.611
1	A:232:LYS:O	A:234:LYS:HB2	0.611
1	C:22:ARG:HA	C:24:GLY:N	0.611
1	A:203:ILE:O	A:207:PHE:HD2	0.611
1	A:319:GLN:HB2	A:330:ILE:CB	0.610
1	B:50:ARG:HG3	B:51:ASN:H	0.610
1	B:81:VAL:CG2	D:14:ALA:HB1	0.610
1	B:342:LYS:HG2	B:346:VAL:CG1	0.610
1	A:60:LEU:CD2	A:68:LYS:HA	0.609
1	A:277:ILE:O	A:277:ILE:HG13	0.609

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:97:LYS:HB3	B:99:PHE:CE1	0.609
1	B:195:LYS:HB3	C:46:GLN:HB3	0.609
1	A:121:THR:HG22	A:122:THR:N	0.608
1	A:195:LYS:HG2	D:46:GLN:O	0.608
1	A:315:TYR:CA	C:19:THR:HA	0.608
1	A:299:ALA:N	A:345:ILE:HD13	0.608
1	A:222:ARG:H	A:352:TYR:HB3	0.608
1	B:207:PHE:CE2	B:225:VAL:HB	0.608
1	B:205:ARG:O	B:209:LYS:HG3	0.608
1	B:122:THR:CA	F:1:35G:N3	0.608
1	A:191:TRP:HB3	D:45:VAL:CG1	0.607
1	A:341:LYS:CB	A:380:LEU:HB2	0.607
1	B:40:ASP:C	B:41:ARG:HG3	0.607
1	B:75:ASN:HB2	B:77:ASP:CG	0.607
1	B:256:PRO:CD	D:28:PHE:N	0.607
1	B:388:MET:HA	B:391:LEU:HD21	0.607
1	C:23:LYS:C	C:25:PRO:HB2	0.607
1	A:292:SER:O	A:315:TYR:HD2	0.607
1	A:58:THR:C	A:78:LYS:HG3	0.606
1	A:189:LEU:HD12	B:189:LEU:HB3	0.606
1	A:195:LYS:HA	D:49:GLY:CA	0.606
1	B:254:LYS:HB2	D:27:LYS:O	0.606
1	C:26:PRO:O	C:27:LYS:HG2	0.606

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:118:THR:HG23	A:119:GLY:N	0.605
1	A:228:LEU:HD12	A:345:ILE:O	0.605
1	A:319:GLN:HG3	A:321:GLY:H	0.605
1	B:130:ILE:HB	B:138:ALA:H	0.605
1	B:188:MET:HA	B:188:MET:HE3	0.605
1	B:313:ASP:OD2	B:335:SER:HB3	0.605
1	A:195:LYS:CB	D:46:GLN:HB3	0.605
1	A:28:LYS:HD2	A:28:LYS:O	0.604
1	A:58:THR:O	A:78:LYS:HB2	0.604
1	A:373:GLN:HG2	A:377:TRP:CE2	0.604
1	B:56:VAL:O	B:81:VAL:HA	0.604
1	B:137:LEU:HD11	B:170:LEU:HD12	0.604
1	B:198:GLU:HG2	C:48:PHE:O	0.604
1	C:28:PHE:HD1	C:31:ARG:HA	0.604
1	B:192:SER:N	C:46:GLN:HB2	0.604
1	A:137:LEU:HD22	A:170:LEU:CG	0.603
1	A:319:GLN:HB3	A:322:PRO:CD	0.603
1	B:215:ARG:HG3	B:269:TYR:CE1	0.603
1	B:227:LEU:C	B:227:LEU:HD13	0.603
1	B:256:PRO:CD	D:23:LYS:HG2	0.603
1	A:60:LEU:HA	A:74:VAL:HG11	0.602
1	A:78:LYS:H	A:78:LYS:HD3	0.602
1	A:234:LYS:HE3	A:240:TRP:CD1	0.602

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:363:TYR:HA	A:366:GLN:HB3	0.602
1	B:46:ILE:CG2	B:59:ARG:HB3	0.602
1	B:292:SER:HA	B:316:PHE:O	0.602
1	B:308:MET:O	B:332:ASN:HA	0.602
1	B:188:MET:SD	B:217:TYR:HD2	0.602
1	A:76:PRO:HG2	A:358:LYS:CG	0.601
1	A:310:ALA:HA	A:330:ILE:CD1	0.601
1	A:377:TRP:CE3	A:377:TRP:HA	0.601
1	B:339:VAL:O	B:376:GLY:HA3	0.601
1	A:383:ASP:HB3	A:387:LYS:NZ	0.600
1	B:259:ARG:HB3	D:26:PRO:CD	0.600
1	B:298:VAL:HG22	B:313:ASP:OD1	0.600
1	A:209:LYS:HB3	D:46:GLN:C	0.599
1	A:340:ASN:HB3	A:342:LYS:C	0.599
1	A:385:TYR:CA	A:388:MET:HE2	0.599
1	B:104:VAL:HG11	F:1:35G:O3'	0.599
1	B:295:PRO:HB3	B:348:VAL:CB	0.599
1	A:41:ARG:CD	E:1:35G:C6	0.599
1	A:257:ASP:HB2	A:300:GLU:H	0.598
1	B:196:VAL:HG12	B:378:SER:OG	0.598
1	B:292:SER:HB3	B:317:THR:HG23	0.598
1	C:22:ARG:HA	C:24:GLY:H	0.598
1	A:195:LYS:N	D:49:GLY:HA2	0.598

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:62:ASN:HB2	C:1:MET:N	0.597
1	B:359:PRO:HB3	D:13:ASP:OD2	0.597
1	B:393:ASN:O	B:397:ILE:HG23	0.597
1	A:340:ASN:HD22	A:342:LYS:H	0.597
1	A:41:ARG:CG	E:1:35G:O6	0.596
1	A:200:LEU:HD12	B:388:MET:CE	0.596
1	A:267:ILE:O	A:267:ILE:HG13	0.596
1	A:399:GLN:HG3	A:399:GLN:OXT	0.596
1	B:214:ILE:HG13	C:46:GLN:OE1	0.596
1	B:294:LEU:CD2	B:335:SER:HB2	0.596
1	B:375:LEU:HD23	B:379:VAL:HG23	0.596
1	A:280:ILE:N	A:280:ILE:HD13	0.595
1	A:217:TYR:HE1	A:367:ILE:HD11	0.595
1	B:203:ILE:HG23	B:204:GLU:N	0.595
1	B:292:SER:CB	B:317:THR:HG23	0.595
1	B:340:ASN:ND2	B:346:VAL:HG23	0.595
1	B:259:ARG:CB	D:22:ARG:HB2	0.595
1	A:40:ASP:HB3	A:144:ASN:OD1	0.594
1	A:79:GLU:C	C:11:THR:HG22	0.594
1	B:187:GLN:HA	B:190:LEU:HD21	0.594
1	B:190:LEU:HD21	B:191:TRP:CZ3	0.594
1	B:320:LYS:HE2	B:320:LYS:N	0.594
1	A:374:PHE:HE1	B:374:PHE:HZ	0.594

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:200:LEU:HB3	A:385:TYR:HB2	0.593
1	A:304:ILE:N	A:304:ILE:HD12	0.593
1	B:305:CYS:HB2	B:313:ASP:CG	0.593
1	B:310:ALA:HB3	B:311:PRO:HD3	0.593
1	B:319:GLN:HG3	B:330:ILE:HB	0.593
1	A:11:LEU:CD2	A:28:LYS:HE2	0.592
1	A:128:ILE:HG22	A:129:PRO:O	0.592
1	A:256:PRO:O	A:259:ARG:HB3	0.592
1	A:310:ALA:HB3	C:17:GLY:O	0.592
1	B:1:ARG:HG2	B:2:LEU:N	0.592
1	B:59:ARG:HA	B:74:VAL:HG11	0.592
1	B:266:ILE:HD11	B:290:LEU:HD21	0.592
1	B:257:ASP:O	B:297:TYR:HA	0.592
1	B:363:TYR:HA	B:366:GLN:CG	0.592
1	C:22:ARG:HA	C:24:GLY:HA2	0.592
1	A:73:LEU:CD1	A:75:ASN:HA	0.591
1	A:221:GLU:O	A:271:LEU:HB2	0.591
1	B:71:ASP:HA	D:1:MET:H1	0.591
1	B:132:GLN:CB	B:135:GLU:HG2	0.591
1	B:217:TYR:CE2	B:367:ILE:HD11	0.591
1	C:6:THR:HG23	C:7:THR:N	0.591
1	A:132:GLN:HG3	A:134:LYS:N	0.590
1	A:193:ALA:HA	A:374:PHE:HZ	0.590

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:366:GLN:HA	A:369:GLU:CG	0.590
1	A:389:ASN:HD21	A:390:LYS:HE2	0.590
1	B:178:LEU:O	B:181:ILE:HG12	0.590
1	B:254:LYS:C	D:27:LYS:HA	0.590
1	C:23:LYS:HG2	C:27:LYS:CE	0.590
1	A:145:LYS:HD2	A:148:ALA:CB	0.589
1	A:314:GLU:HG2	C:20:THR:HB	0.589
1	A:389:ASN:HD21	A:390:LYS:CE	0.589
1	B:63:VAL:HA	B:67:SER:CB	0.589
1	B:128:ILE:HG22	B:129:PRO:N	0.589
1	C:5:PRO:HG2	C:14:ALA:HB3	0.589
1	A:184:ARG:HA	A:184:ARG:HE	0.588
1	A:320:LYS:CD	A:333:VAL:HG11	0.588
1	A:68:LYS:HD3	A:68:LYS:O	0.587
1	A:191:TRP:C	D:45:VAL:HG22	0.587
1	A:227:LEU:HD12	A:265:LYS:HD3	0.587
1	A:298:VAL:HG23	A:345:ILE:HD13	0.587
1	A:319:GLN:HG3	A:352:TYR:HE1	0.587
1	A:320:LYS:HD2	A:333:VAL:HG11	0.587
1	A:185:ARG:CG	A:367:ILE:HB	0.587
1	B:50:ARG:HG3	B:51:ASN:N	0.587
1	B:130:ILE:CD1	B:140:VAL:HG23	0.587
1	B:228:LEU:HD23	B:263:PHE:CZ	0.587

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:231:THR:OG1	B:236:PHE:HA	0.587
1	D:37:LYS:HB3	D:41:PRO:CD	0.587
1	A:174:HIS:O	A:178:LEU:HG	0.586
1	B:37:LEU:HD21	B:151:PHE:CD2	0.586
1	B:135:GLU:C	B:137:LEU:HA	0.586
1	B:194:ASN:HB3	C:45:VAL:HG12	0.586
1	B:351:PHE:CE1	B:360:PHE:HZ	0.586
1	A:311:PRO:HG3	C:18:PRO:HD2	0.585
1	A:336:LEU:HG	A:372:THR:CB	0.585
1	B:68:LYS:CA	B:72:ASN:HB2	0.585
1	B:169:VAL:HA	B:172:ASN:HD21	0.585
1	B:201:THR:HG21	B:209:LYS:HZ2	0.585
1	B:309:ASN:HB2	D:9:LEU:C	0.585
1	C:6:THR:HG22	C:15:PRO:HB3	0.585
1	A:46:ILE:HG13	A:137:LEU:O	0.584
1	A:46:ILE:HD11	A:174:HIS:CE1	0.584
1	B:104:VAL:HG21	B:125:MET:HE2	0.584
1	B:134:LYS:HB2	B:174:HIS:NE2	0.584
1	B:188:MET:HB2	B:371:LEU:HD21	0.584
1	B:299:ALA:HB2	B:345:ILE:HG12	0.584
1	A:53:ILE:O	A:53:ILE:HG13	0.584
1	A:185:ARG:HA	A:367:ILE:HD11	0.583
1	A:228:LEU:HD23	A:263:PHE:CD2	0.583

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:294:LEU:CD2	A:333:VAL:HG23	0.583
1	B:192:SER:HB2	B:195:LYS:NZ	0.583
1	B:195:LYS:NZ	B:210:ALA:HB2	0.583
1	B:98:PHE:HD1	B:128:ILE:CG1	0.583
1	A:50:ARG:CG	A:306:ASN:HB3	0.582
1	A:266:ILE:CG2	A:283:PRO:HB3	0.582
1	B:59:ARG:HG3	B:74:VAL:HB	0.582
1	B:137:LEU:C	B:137:LEU:HD13	0.582
1	C:3:GLU:O	C:5:PRO:HD2	0.582
1	A:316:PHE:N	C:19:THR:HA	0.582
1	A:74:VAL:HB	A:78:LYS:HB3	0.581
1	B:134:LYS:HD2	B:134:LYS:N	0.581
1	B:201:THR:HG21	B:209:LYS:NZ	0.581
1	B:256:PRO:HB3	D:28:PHE:CA	0.581
1	B:337:PRO:HA	B:345:ILE:HD11	0.581
1	A:41:ARG:CD	E:1:35G:O6	0.580
1	A:75:ASN:HB3	A:77:ASP:HB2	0.580
1	A:257:ASP:OD2	A:261:VAL:HG22	0.580
1	A:364:ASP:O	A:367:ILE:HG22	0.580
1	A:392:GLU:O	A:395:LYS:HB2	0.580
1	B:82:PHE:HD2	B:114:LEU:HD23	0.580
1	B:340:ASN:HD22	B:346:VAL:HG23	0.580
1	A:222:ARG:CD	A:270:ILE:HG22	0.579

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:256:PRO:C	C:25:PRO:HB3	0.579
1	A:297:TYR:HB3	A:314:GLU:N	0.579
1	A:305:CYS:O	A:334:LEU:HD22	0.579
1	A:378:SER:CB	D:46:GLN:HE22	0.579
1	B:183:SER:O	B:187:GLN:HG3	0.579
1	B:198:GLU:OE2	B:199:GLU:HB3	0.579
1	C:23:LYS:CD	C:27:LYS:HG2	0.579
1	B:191:TRP:O	C:46:GLN:HB2	0.579
1	C:28:PHE:O	C:30:GLN:CA	0.579
1	A:41:ARG:HD3	E:1:35G:O6	0.578
1	A:192:SER:O	A:196:VAL:HG23	0.578
1	A:341:LYS:CG	A:380:LEU:HA	0.578
1	B:134:LYS:H	B:134:LYS:HD2	0.578
1	B:301:ASN:HA	D:31:ARG:H	0.578
1	A:195:LYS:HB2	D:48:PHE:C	0.577
1	A:195:LYS:HD2	A:198:GLU:HB3	0.577
1	A:218:LEU:HD13	A:220:CYS:HG	0.577
1	A:297:TYR:CE2	C:26:PRO:CB	0.577
1	A:371:LEU:O	A:375:LEU:HG	0.577
1	B:269:TYR:HD1	B:271:LEU:CD2	0.577
1	C:6:THR:HG22	C:15:PRO:HA	0.577
1	B:30:LEU:HD13	B:63:VAL:HG21	0.576
1	B:33:LEU:C	B:33:LEU:HD13	0.576

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:266:ILE:CD1	B:290:LEU:HD21	0.576
1	A:308:MET:SD	C:11:THR:HB	0.576
1	A:166:ILE:O	A:169:VAL:HG22	0.575
1	B:193:ALA:CB	B:374:PHE:HZ	0.575
1	B:255:THR:HG23	D:26:PRO:O	0.575
1	C:27:LYS:CB	C:31:ARG:HB2	0.575
1	D:23:LYS:O	D:27:LYS:HG3	0.575
1	B:312:ALA:O	B:315:TYR:HE1	0.575
1	A:44:MET:HG3	A:138:ALA:CB	0.574
1	A:134:LYS:HD3	A:134:LYS:N	0.574
1	A:258:GLY:HA2	A:297:TYR:CB	0.574
1	A:274:LYS:HD2	A:274:LYS:N	0.574
1	A:380:LEU:O	A:380:LEU:HD22	0.574
1	B:66:THR:O	B:66:THR:HG23	0.574
1	B:177:TYR:CE1	B:358:LYS:HD2	0.574
1	A:50:ARG:HD3	A:306:ASN:O	0.573
1	A:297:TYR:CD2	C:26:PRO:HB3	0.573
1	A:297:TYR:CE2	A:314:GLU:HG3	0.573
1	B:41:ARG:CG	B:62:ASN:HB3	0.573
1	B:132:GLN:HG2	B:133:GLY:N	0.573
1	B:333:VAL:HG11	B:350:THR:CG2	0.573
1	A:63:VAL:HG22	A:67:SER:HB2	0.572
1	A:76:PRO:HA	A:78:LYS:HD3	0.572

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:209:LYS:HB3	C:47:GLY:CA	0.572
1	C:7:THR:O	C:7:THR:HG23	0.572
1	A:41:ARG:CD	A:143:LEU:HB2	0.571
1	A:63:VAL:HA	A:67:SER:CB	0.571
1	A:313:ASP:OD2	A:335:SER:HB2	0.571
1	B:26:VAL:HG22	B:170:LEU:CD2	0.571
1	C:38:SER:O	C:42:LYS:HG2	0.571
1	A:137:LEU:HD22	A:170:LEU:CB	0.570
1	A:182:GLU:CB	B:182:GLU:CG	0.570
1	A:210:ALA:HA	D:46:GLN:CA	0.570
1	A:212:TYR:HB3	D:47:GLY:HA2	0.570
1	B:192:SER:HB3	C:46:GLN:NE2	0.570
1	B:265:LYS:C	B:266:ILE:HD12	0.570
1	B:346:VAL:O	B:346:VAL:HG23	0.570
1	B:254:LYS:O	D:27:LYS:HG2	0.570
1	A:88:ILE:HD13	A:109:HIS:O	0.569
1	A:130:ILE:HD13	A:170:LEU:CD1	0.569
1	B:74:VAL:HA	B:78:LYS:CA	0.569
1	B:255:THR:HA	D:26:PRO:O	0.569
1	C:23:LYS:HE3	C:31:ARG:HH21	0.569
1	A:195:LYS:CA	D:49:GLY:HA2	0.569
1	A:9:PHE:CE1	B:161:LYS:HG2	0.568
1	A:298:VAL:HG23	A:345:ILE:HD11	0.568

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:97:LYS:HB3	B:99:PHE:HE1	0.568
1	B:162:TYR:CD1	B:166:ILE:HD11	0.568
1	B:266:ILE:CD1	B:290:LEU:HD11	0.568
1	B:336:LEU:HB3	B:337:PRO:HD2	0.568
1	B:337:PRO:HA	B:345:ILE:CD1	0.568
1	D:11:THR:HB	D:12:GLY:O	0.568
1	A:319:GLN:NE2	A:320:LYS:H	0.568
1	A:208:HIS:HA	A:211:LEU:HD21	0.567
1	A:306:ASN:HA	A:334:LEU:CD2	0.567
1	B:84:LEU:N	B:84:LEU:HD12	0.567
1	B:150:GLU:HG2	B:151:PHE:N	0.567
1	B:397:ILE:C	B:397:ILE:HD12	0.567
1	C:27:LYS:HB3	C:31:ARG:CB	0.567
1	A:178:LEU:HB3	B:179:TYR:CE1	0.566
1	A:185:ARG:HA	A:367:ILE:CD1	0.566
1	A:206:GLN:HB2	A:382:THR:CG2	0.566
1	A:341:LYS:HZ2	A:380:LEU:HD23	0.566
1	B:256:PRO:HD3	D:23:LYS:CG	0.566
1	B:270:ILE:O	B:270:ILE:HG23	0.566
1	B:368:ILE:O	B:372:THR:HG23	0.566
1	A:62:ASN:HB2	C:1:MET:H2	0.565
1	A:210:ALA:HB2	D:46:GLN:HG2	0.565
1	A:297:TYR:CD2	A:314:GLU:CB	0.565

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:376:GLY:O	A:379:VAL:HG22	0.565
1	B:44:MET:HB2	B:60:LEU:HB2	0.565
1	B:52:GLY:C	B:53:ILE:HD12	0.565
1	C:9:LEU:H	C:9:LEU:HD22	0.565
1	C:23:LYS:C	C:25:PRO:N	0.565
1	A:130:ILE:HD11	A:140:VAL:HG23	0.564
1	A:222:ARG:HD3	A:270:ILE:HG22	0.564
1	A:330:ILE:O	A:330:ILE:HG23	0.564
1	B:104:VAL:HG12	B:110:PHE:CD1	0.564
1	A:74:VAL:O	A:74:VAL:HG23	0.563
1	A:303:PHE:HB2	C:30:GLN:HB2	0.563
1	A:315:TYR:HA	C:20:THR:H	0.563
1	B:44:MET:HG3	B:60:LEU:CD2	0.563
1	B:70:GLU:HG3	B:71:ASP:N	0.563
1	B:213:THR:HB	C:46:GLN:OE1	0.563
1	B:319:GLN:CG	B:330:ILE:HB	0.563
1	A:75:ASN:HB3	A:77:ASP:CB	0.562
1	A:189:LEU:HD21	A:374:PHE:HB2	0.562
1	A:270:ILE:HD11	A:275:GLU:H	0.562
1	B:351:PHE:HD1	B:352:TYR:O	0.562
1	A:340:ASN:HD22	A:341:LYS:H	0.562
1	B:256:PRO:N	D:27:LYS:N	0.562
1	C:22:ARG:CA	C:24:GLY:H	0.562

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:210:ALA:HA	D:46:GLN:CG	0.561
1	A:275:GLU:HG3	A:275:GLU:O	0.561
1	A:257:ASP:H	A:300:GLU:HB2	0.561
1	B:22:MET:HE1	B:59:ARG:NH2	0.561
1	B:255:THR:C	D:27:LYS:HA	0.561
1	A:23:GLU:HB2	A:68:LYS:NZ	0.560
1	A:33:LEU:HD22	A:162:TYR:CB	0.560
1	A:299:ALA:HB1	A:345:ILE:CG2	0.560
1	A:341:LYS:HB3	A:380:LEU:CD2	0.560
1	B:240:TRP:CE2	B:244:LEU:HD13	0.560
1	B:308:MET:CG	B:309:ASN:H	0.560
1	A:135:GLU:OE1	A:170:LEU:HD23	0.559
1	A:295:PRO:CA	A:348:VAL:HG11	0.559
1	B:191:TRP:HB2	C:46:GLN:OE1	0.559
1	B:223:TYR:CE2	B:349:ALA:HB1	0.559
1	B:340:ASN:HD21	B:379:VAL:CG1	0.559
1	B:377:TRP:O	B:380:LEU:HB3	0.559
1	A:118:THR:OG1	C:3:GLU:HG2	0.559
1	C:10:THR:CG2	C:14:ALA:H	0.559
1	B:209:LYS:CB	C:47:GLY:HA3	0.559
1	A:270:ILE:CD1	A:275:GLU:H	0.558
1	A:331:LYS:HD2	A:353:ASN:HB3	0.558
1	A:377:TRP:CD2	B:197:PHE:CD2	0.558

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:58:THR:O	B:58:THR:HG23	0.558
1	B:196:VAL:HG11	B:378:SER:HB2	0.558
1	A:244:LEU:CD2	A:244:LEU:H	0.558
1	A:60:LEU:HD22	A:68:LYS:HA	0.557
1	A:242:ILE:HG12	A:243:ARG:N	0.557
1	A:300:GLU:HB3	C:26:PRO:HD3	0.557
1	A:380:LEU:HD22	A:384:THR:CG2	0.557
1	B:22:MET:CB	B:173:HIS:HB2	0.557
1	B:188:MET:HB3	B:371:LEU:CD2	0.557
1	B:330:ILE:O	B:330:ILE:HG23	0.557
1	B:380:LEU:C	B:380:LEU:HD23	0.557
1	A:319:GLN:CA	A:319:GLN:HE21	0.557
1	A:32:ARG:NE	A:36:LEU:HD11	0.556
1	A:188:MET:HG2	A:371:LEU:HD13	0.556
1	B:192:SER:CB	C:46:GLN:HE21	0.556
1	B:222:ARG:H	B:352:TYR:CB	0.556
1	A:59:ARG:HD3	A:74:VAL:HG23	0.555
1	A:336:LEU:N	A:336:LEU:HD23	0.555
1	B:137:LEU:HG	B:170:LEU:HB3	0.555
1	B:228:LEU:HD12	B:232:LYS:CE	0.555
1	B:294:LEU:HB3	B:320:LYS:NZ	0.555
1	B:299:ALA:CA	B:345:ILE:HG21	0.555
1	A:168:LEU:CD2	B:168:LEU:HD23	0.554

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:182:GLU:HA	A:185:ARG:HD3	0.554
1	A:209:LYS:HB3	D:46:GLN:O	0.554
1	A:329:VAL:HG12	A:330:ILE:N	0.554
1	A:367:ILE:HG23	A:368:ILE:N	0.554
1	B:26:VAL:HG13	B:44:MET:CE	0.554
1	B:190:LEU:HG	B:191:TRP:CZ3	0.554
1	C:1:MET:HG2	C:2:SER:N	0.554
1	B:75:ASN:CA	B:77:ASP:H	0.553
1	C:9:LEU:O	C:10:THR:HB	0.553
1	B:240:TRP:HD1	B:241:PRO:O	0.553
1	A:239:GLU:HG2	A:240:TRP:N	0.552
1	A:320:LYS:HB2	A:352:TYR:HD1	0.552
1	A:334:LEU:C	A:334:LEU:HD13	0.552
1	B:344:GLU:CG	B:346:VAL:HG13	0.552
1	B:48:ARG:HH21	B:361:ASP:HA	0.552
1	C:9:LEU:HA	C:13:ASP:HB3	0.552
1	A:135:GLU:OE2	A:137:LEU:HD13	0.551
1	A:287:HIS:HB3	A:290:LEU:HB2	0.551
1	A:326:THR:HG23	A:327:GLY:N	0.551
1	A:185:ARG:NH1	A:367:ILE:HA	0.551
1	B:79:GLU:HB2	D:14:ALA:CB	0.551
1	B:221:GLU:OE1	B:272:HIS:HB2	0.551
1	B:298:VAL:HG11	B:337:PRO:CA	0.551

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:351:PHE:CE1	B:360:PHE:CZ	0.551
1	B:219:ASN:O	B:354:ARG:HG3	0.551
1	C:23:LYS:HD3	C:27:LYS:CG	0.551
1	A:258:GLY:H	C:26:PRO:CD	0.551
1	B:118:THR:O	D:5:PRO:HD3	0.551
1	A:78:LYS:CG	A:79:GLU:N	0.551
1	A:41:ARG:HG3	A:143:LEU:HD12	0.550
1	A:195:LYS:HB2	D:49:GLY:CA	0.550
1	A:340:ASN:HB3	A:342:LYS:CA	0.550
1	A:380:LEU:HD13	A:381:ASN:N	0.550
1	B:26:VAL:CG2	B:170:LEU:HD21	0.550
1	B:114:LEU:C	B:114:LEU:HD13	0.550
1	B:185:ARG:HB3	B:367:ILE:HG13	0.550
1	B:269:TYR:CD1	B:271:LEU:HD22	0.550
1	C:37:LYS:HB3	C:39:LYS:NZ	0.550
1	A:228:LEU:HD11	A:299:ALA:HB2	0.549
1	B:41:ARG:HH11	B:62:ASN:HB3	0.549
1	B:256:PRO:HD3	D:23:LYS:HG2	0.549
1	B:222:ARG:NH2	B:270:ILE:HD12	0.549
1	B:292:SER:CB	B:317:THR:HA	0.549
1	A:396:ASP:OD2	B:393:ASN:HB2	0.549
1	D:39:LYS:CG	D:40:PRO:HD2	0.549
1	A:264:TYR:CE1	A:282:THR:HG22	0.548

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:256:PRO:CB	B:300:GLU:HB2	0.548
1	B:320:LYS:CA	B:320:LYS:HE2	0.548
1	A:258:GLY:O	A:315:TYR:HB2	0.547
1	A:366:GLN:HA	A:369:GLU:HG2	0.547
1	B:188:MET:CB	B:371:LEU:HD21	0.547
1	A:151:PHE:HE2	A:156:GLU:N	0.547
1	A:60:LEU:HD13	A:61:LEU:O	0.546
1	A:67:SER:C	A:69:PHE:H	0.546
1	A:209:LYS:HB3	D:46:GLN:CB	0.546
1	A:255:THR:O	A:255:THR:HG23	0.546
1	B:181:ILE:CD1	B:363:TYR:HD1	0.546
1	B:189:LEU:HD23	B:371:LEU:CD2	0.546
1	B:203:ILE:HD13	B:379:VAL:CG1	0.546
1	B:341:LYS:HB2	B:380:LEU:CD1	0.546
1	D:43:LYS:HG2	D:44:GLY:O	0.546
1	A:167:SER:HA	A:170:LEU:HD22	0.545
1	A:370:THR:HG23	B:190:LEU:HB3	0.545
1	A:162:TYR:HH	A:166:ILE:HD13	0.544
1	A:210:ALA:CB	D:46:GLN:HG2	0.544
1	A:299:ALA:HA	A:345:ILE:CG2	0.544
1	A:319:GLN:HG2	A:330:ILE:CA	0.544
1	B:3:GLU:HA	B:3:GLU:OE1	0.544
1	B:103:ASP:HB2	B:106:LYS:HD3	0.544

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:308:MET:CG	D:15:PRO:HA	0.544
1	A:132:GLN:CD	A:135:GLU:HG3	0.543
1	A:294:LEU:CB	A:295:PRO:HD3	0.543
1	A:309:ASN:HB3	C:16:THR:O	0.543
1	A:317:THR:HG21	A:320:LYS:NZ	0.543
1	A:336:LEU:HB2	A:337:PRO:HD2	0.543
1	B:145:LYS:HD3	B:148:ALA:HB3	0.543
1	B:294:LEU:HB2	B:315:TYR:CE1	0.543
1	B:351:PHE:CD1	B:360:PHE:CE2	0.543
1	A:37:LEU:HD11	A:151:PHE:HE1	0.542
1	A:41:ARG:HG3	A:62:ASN:CB	0.542
1	A:298:VAL:CG2	A:348:VAL:HG22	0.542
1	B:73:LEU:O	B:73:LEU:HD23	0.542
1	B:320:LYS:HD3	B:350:THR:HG21	0.542
1	A:184:ARG:HB3	A:217:TYR:CE1	0.541
1	A:261:VAL:HG12	A:262:ASN:N	0.541
1	B:26:VAL:HG12	B:68:LYS:HD2	0.541
1	B:67:SER:HB3	B:72:ASN:ND2	0.541
1	B:184:ARG:HD2	B:217:TYR:CD1	0.541
1	B:213:THR:HB	C:46:GLN:CD	0.541
1	B:256:PRO:CB	D:28:PHE:H	0.541
1	B:334:LEU:H	B:351:PHE:HB3	0.541
1	A:257:ASP:H	C:26:PRO:HD3	0.541

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:131:THR:HG22	A:132:GLN:O	0.540
1	A:151:PHE:CE2	A:156:GLU:HA	0.540
1	A:328:TRP:CD1	A:352:TYR:CE2	0.540
1	B:340:ASN:OD1	B:379:VAL:HB	0.540
1	B:259:ARG:HE	D:22:ARG:CB	0.540
1	D:23:LYS:CB	D:27:LYS:CB	0.540
1	D:43:LYS:HB2	D:50:ASP:HB2	0.540
1	B:11:LEU:HD22	B:25:ILE:CD1	0.539
1	B:38:ALA:O	B:145:LYS:HG3	0.539
1	B:333:VAL:CG1	B:350:THR:HG23	0.539
1	A:288:TRP:CZ2	A:323:VAL:HG13	0.538
1	B:46:ILE:HG12	B:59:ARG:HB2	0.538
1	B:255:THR:HG23	D:26:PRO:CB	0.538
1	B:257:ASP:HB3	B:296:THR:O	0.538
1	B:82:PHE:HE1	B:90:GLY:H	0.538
1	B:7:ILE:HB	B:32:ARG:NH1	0.537
1	B:55:GLU:HB2	B:81:VAL:HG13	0.537
1	B:97:LYS:HD3	B:99:PHE:CZ	0.537
1	B:185:ARG:CB	B:367:ILE:HD12	0.537
1	B:207:PHE:CE2	B:267:ILE:HG21	0.537
1	B:207:PHE:HE1	B:375:LEU:HD11	0.537
1	A:292:SER:HB2	A:317:THR:CB	0.536
1	A:297:TYR:CE2	A:314:GLU:CD	0.536

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:310:ALA:HB3	C:17:GLY:N	0.536
1	B:53:ILE:HG22	B:54:PRO:N	0.536
1	B:56:VAL:HG11	B:82:PHE:CD1	0.536
1	B:294:LEU:CA	B:315:TYR:CE1	0.536
1	A:189:LEU:HD22	A:374:PHE:HB2	0.535
1	B:60:LEU:HG	B:63:VAL:HG23	0.535
1	A:197:PHE:HD1	B:380:LEU:CD1	0.535
1	A:16:GLN:HA	A:16:GLN:NE2	0.534
1	A:162:TYR:OH	A:166:ILE:HD13	0.534
1	A:190:LEU:HD11	B:373:GLN:CD	0.534
1	A:197:PHE:CD1	B:380:LEU:CD1	0.534
1	B:7:ILE:HG13	B:8:LEU:N	0.534
1	B:40:ASP:O	B:41:ARG:HG3	0.534
1	B:195:LYS:HD3	B:210:ALA:HA	0.534
1	A:300:GLU:OE2	C:27:LYS:HE2	0.534
1	A:61:LEU:CB	A:72:ASN:HD22	0.534
1	A:82:PHE:CD1	A:113:TYR:HD2	0.533
1	A:135:GLU:CB	A:137:LEU:HB2	0.533
1	A:303:PHE:HB3	C:30:GLN:HB2	0.533
1	B:135:GLU:HB2	B:137:LEU:HB2	0.533
1	B:218:LEU:CD1	B:351:PHE:HE2	0.533
1	B:310:ALA:HB3	B:311:PRO:CD	0.533
1	D:43:LYS:H	D:43:LYS:HD3	0.533

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:101:ILE:HG13	A:102:PRO:C	0.532
1	B:63:VAL:HG22	B:67:SER:HB3	0.532
1	A:191:TRP:CB	D:45:VAL:N	0.531
1	A:319:GLN:NE2	A:330:ILE:HD12	0.531
1	B:195:LYS:HA	C:49:GLY:N	0.531
1	B:294:LEU:CB	B:295:PRO:HD3	0.531
1	B:336:LEU:CD1	B:368:ILE:HG22	0.531
1	B:340:ASN:HD21	B:379:VAL:CB	0.531
1	C:28:PHE:CE2	C:29:LYS:HB2	0.531
1	A:41:ARG:O	A:143:LEU:HB2	0.530
1	A:319:GLN:HG2	A:330:ILE:HA	0.530
1	A:341:LYS:HZ2	A:380:LEU:CD2	0.530
1	B:177:TYR:CZ	B:358:LYS:HD2	0.530
1	B:213:THR:HG21	C:46:GLN:HA	0.530
1	B:280:ILE:O	B:280:ILE:HG23	0.530
1	B:364:ASP:O	B:367:ILE:HG23	0.530
1	A:309:ASN:HB2	A:311:PRO:HD3	0.529
1	A:319:GLN:HB3	A:322:PRO:HD2	0.529
1	A:342:LYS:HB2	A:342:LYS:NZ	0.529
1	A:18:GLU:HG2	A:19:ALA:N	0.528
1	A:78:LYS:HZ2	A:79:GLU:HG2	0.528
1	A:231:THR:O	A:234:LYS:HB3	0.528
1	A:297:TYR:CD1	A:314:GLU:N	0.528

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:340:ASN:CB	A:346:VAL:HG11	0.528
1	B:256:PRO:HG3	D:23:LYS:HG2	0.528
1	B:290:LEU:N	B:290:LEU:HD12	0.528
1	A:300:GLU:N	C:26:PRO:HG2	0.528
1	A:137:LEU:HG	A:137:LEU:O	0.527
1	A:336:LEU:H	A:336:LEU:HD23	0.527
1	B:50:ARG:CG	B:51:ASN:H	0.527
1	B:185:ARG:CB	B:367:ILE:HG13	0.527
1	B:198:GLU:HB3	C:49:GLY:C	0.527
1	C:23:LYS:HB2	C:25:PRO:HB2	0.527
1	A:300:GLU:OE1	C:27:LYS:HA	0.527
1	A:60:LEU:HD13	A:61:LEU:N	0.526
1	A:76:PRO:CA	A:78:LYS:HD3	0.526
1	A:286:ASP:CA	A:291:ILE:HD11	0.526
1	A:333:VAL:HB	A:351:PHE:O	0.526
1	A:342:LYS:CB	A:346:VAL:HG11	0.526
1	B:26:VAL:HB	B:68:LYS:HD3	0.526
1	B:76:PRO:HB2	B:359:PRO:HD2	0.526
1	B:127:ALA:HB2	B:141:MET:CG	0.526
1	B:345:ILE:O	B:345:ILE:HG23	0.526
1	D:41:PRO:O	D:42:LYS:HB2	0.526
1	A:44:MET:CB	A:60:LEU:HB3	0.525
1	A:185:ARG:HH21	B:186:SER:HB2	0.525

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:198:GLU:HG3	B:199:GLU:H	0.525
1	D:22:ARG:HB2	D:24:GLY:O	0.525
1	A:195:LYS:HD3	D:48:PHE:HB3	0.524
1	A:318:PHE:O	A:319:GLN:HB2	0.524
1	A:200:LEU:CD1	A:388:MET:HE1	0.524
1	B:53:ILE:N	B:53:ILE:HD12	0.524
1	B:111:SER:OG	B:113:TYR:HB3	0.524
1	B:128:ILE:HD13	B:159:PHE:CE2	0.524
1	B:188:MET:HB3	B:371:LEU:HD22	0.524
1	B:294:LEU:CD2	B:295:PRO:HD3	0.524
1	A:55:GLU:HB3	A:81:VAL:HG21	0.523
1	A:78:LYS:HG2	A:79:GLU:CA	0.523
1	B:59:ARG:C	B:74:VAL:HG21	0.523
1	B:60:LEU:CD1	B:68:LYS:HA	0.523
1	B:103:ASP:HB3	B:106:LYS:HD3	0.523
1	B:282:THR:O	B:282:THR:HG22	0.523
1	C:34:ARG:HG2	C:34:ARG:O	0.523
1	A:81:VAL:HG22	A:82:PHE:N	0.522
1	A:256:PRO:HG2	C:23:LYS:CB	0.522
1	B:195:LYS:HG3	B:196:VAL:N	0.522
1	B:294:LEU:HD23	B:295:PRO:N	0.522
1	D:11:THR:HG22	D:15:PRO:HD2	0.522
1	A:257:ASP:HB2	A:300:GLU:CB	0.521

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:40:ASP:OD2	B:144:ASN:HB3	0.521
1	B:193:ALA:CB	B:374:PHE:CZ	0.521
1	B:266:ILE:HG21	B:287:HIS:CE1	0.521
1	B:317:THR:HG22	B:319:GLN:CA	0.521
1	B:342:LYS:HA	B:342:LYS:HZ2	0.521
1	B:202:ASP:O	B:382:THR:HG21	0.521
1	A:110:PHE:HE2	A:112:ASP:OD1	0.521
1	A:27:HIS:HB3	A:68:LYS:HB3	0.520
1	A:41:ARG:CB	A:62:ASN:HB3	0.520
1	A:45:PHE:HA	A:58:THR:HA	0.520
1	A:75:ASN:CA	A:77:ASP:H	0.520
1	A:59:ARG:N	A:78:LYS:HG3	0.520
1	A:294:LEU:HD22	A:333:VAL:CG2	0.520
1	A:76:PRO:CG	A:358:LYS:HG3	0.520
1	B:101:ILE:O	B:101:ILE:HG23	0.520
1	B:256:PRO:HD3	D:27:LYS:N	0.520
1	B:274:LYS:H	B:274:LYS:HD2	0.520
1	B:304:ILE:HG13	B:336:LEU:HD23	0.520
1	B:319:GLN:NE2	B:322:PRO:HB3	0.520
1	A:56:VAL:HG22	A:82:PHE:O	0.519
1	B:75:ASN:N	B:77:ASP:HB2	0.519
1	B:209:LYS:CA	C:47:GLY:CA	0.519
1	A:374:PHE:HE1	B:374:PHE:CZ	0.519

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:150:GLU:CG	A:151:PHE:H	0.519
1	A:58:THR:O	A:58:THR:HG23	0.518
1	A:230:MET:HE3	A:239:GLU:HB2	0.518
1	A:259:ARG:HB2	C:25:PRO:CD	0.518
1	B:104:VAL:HG21	B:123:VAL:O	0.518
1	B:246:GLU:HA	D:29:LYS:HZ3	0.518
1	B:306:ASN:HA	B:334:LEU:HD22	0.518
1	B:310:ALA:HB1	B:317:THR:CB	0.518
1	B:320:LYS:HG2	B:333:VAL:HG21	0.518
1	B:340:ASN:CB	B:342:LYS:HB3	0.518
1	A:15:ILE:HG21	B:168:LEU:CD1	0.517
1	B:84:LEU:H	B:84:LEU:HD12	0.517
1	B:221:GLU:HB2	B:352:TYR:CE2	0.517
1	A:132:GLN:HG2	A:135:GLU:HB2	0.516
1	A:146:LEU:C	A:146:LEU:HD13	0.516
1	A:307:MET:HE1	A:310:ALA:O	0.516
1	B:12:LEU:C	B:12:LEU:HD23	0.516
1	B:297:TYR:CD1	B:314:GLU:N	0.516
1	B:332:ASN:HB2	D:13:ASP:OD2	0.516
1	B:348:VAL:O	B:348:VAL:HG13	0.516
1	A:194:ASN:HB2	D:49:GLY:HA3	0.515
1	A:256:PRO:HA	A:300:GLU:CG	0.515
1	A:317:THR:HG21	A:320:LYS:HZ2	0.515

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:346:VAL:HG23	A:347:GLY:N	0.515
1	B:78:LYS:CE	B:78:LYS:HA	0.515
1	A:16:GLN:HE22	B:167:SER:CB	0.515
1	B:206:GLN:HB2	B:382:THR:HG21	0.515
1	B:211:LEU:HD12	B:212:TYR:H	0.515
1	B:244:LEU:HD21	B:247:ALA:HA	0.515
1	B:287:HIS:HB3	B:290:LEU:HB2	0.515
1	B:297:TYR:CZ	B:301:ASN:HB3	0.515
1	B:255:THR:CA	D:26:PRO:C	0.515
1	A:60:LEU:C	A:60:LEU:HD13	0.514
1	B:193:ALA:HA	B:374:PHE:HE1	0.514
1	B:351:PHE:CE2	B:360:PHE:HZ	0.514
1	C:23:LYS:HB2	C:25:PRO:CB	0.514
1	C:46:GLN:HG3	C:47:GLY:H	0.514
1	A:303:PHE:N	C:30:GLN:H	0.514
1	A:82:PHE:CG	A:114:LEU:CD2	0.513
1	A:92:VAL:CG2	A:129:PRO:HD3	0.513
1	A:217:TYR:CZ	A:367:ILE:HD11	0.513
1	A:256:PRO:HG2	C:27:LYS:HE3	0.513
1	A:338:ILE:O	A:338:ILE:HG23	0.513
1	B:50:ARG:HB3	B:55:GLU:OE2	0.513
1	B:166:ILE:HG22	B:170:LEU:CD2	0.513
1	B:280:ILE:HG13	B:281:PRO:O	0.513

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:334:LEU:HD13	B:335:SER:N	0.513
1	B:388:MET:O	B:392:GLU:HB3	0.513
1	B:259:ARG:NE	D:22:ARG:HB2	0.513
1	A:300:GLU:O	C:27:LYS:O	0.513
1	A:198:GLU:O	A:199:GLU:HB2	0.512
1	B:88:ILE:O	B:92:VAL:HG23	0.512
1	B:297:TYR:CE1	B:314:GLU:HG2	0.512
1	B:340:ASN:CG	B:379:VAL:HB	0.512
1	C:28:PHE:CD2	C:29:LYS:N	0.512
1	A:294:LEU:HD22	A:333:VAL:HG21	0.511
1	A:311:PRO:HD3	C:18:PRO:HD2	0.511
1	B:104:VAL:CG1	B:110:PHE:CD1	0.511
1	B:184:ARG:HG3	B:217:TYR:CE1	0.511
1	B:188:MET:CE	B:191:TRP:CD1	0.511
1	B:308:MET:HG3	D:15:PRO:HA	0.511
1	B:184:ARG:HE	B:219:ASN:HD21	0.511
1	A:41:ARG:HB2	A:63:VAL:N	0.510
1	A:59:ARG:HA	A:74:VAL:HB	0.510
1	A:301:ASN:HB2	C:30:GLN:HA	0.510
1	B:135:GLU:HG3	B:137:LEU:H	0.510
1	B:194:ASN:HA	B:197:PHE:HD2	0.510
1	B:203:ILE:CD1	B:379:VAL:HG13	0.510
1	B:293:GLY:N	B:315:TYR:CD2	0.510

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:334:LEU:C	B:334:LEU:HD13	0.510
1	B:194:ASN:HD22	C:45:VAL:HA	0.510
1	A:214:ILE:N	D:45:VAL:HB	0.510
1	A:31:GLN:HG3	A:32:ARG:N	0.509
1	A:59:ARG:O	A:60:LEU:HB2	0.509
1	A:68:LYS:HE2	A:74:VAL:CG2	0.509
1	A:194:ASN:CA	A:197:PHE:CE2	0.509
1	A:219:ASN:HB3	A:355:LYS:HB3	0.509
1	A:255:THR:N	A:256:PRO:HD3	0.509
1	A:308:MET:CG	C:11:THR:HB	0.509
1	B:320:LYS:HD2	B:350:THR:CG2	0.509
1	B:318:PHE:O	B:330:ILE:HG21	0.509
1	B:374:PHE:CE1	B:377:TRP:NE1	0.509
1	C:6:THR:HG22	C:15:PRO:CA	0.509
1	A:16:GLN:HA	B:171:ARG:HH22	0.508
1	A:60:LEU:H	A:74:VAL:HG11	0.508
1	A:80:THR:HG22	A:82:PHE:CZ	0.508
1	A:364:ASP:O	A:368:ILE:HD13	0.508
1	A:41:ARG:HG3	A:62:ASN:CG	0.507
1	A:297:TYR:CG	A:314:GLU:N	0.507
1	A:297:TYR:CD2	A:314:GLU:CG	0.507
1	B:195:LYS:HB2	C:47:GLY:HA3	0.507
1	B:206:GLN:CB	B:382:THR:HG21	0.507

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:255:THR:O	B:255:THR:HG22	0.507
1	B:303:PHE:HB2	D:32:GLN:HA	0.507
1	B:309:ASN:HB2	D:9:LEU:O	0.507
1	B:361:ASP:O	B:365:GLU:HG3	0.507
1	C:45:VAL:HG11	C:50:ASP:N	0.507
1	A:73:LEU:HD13	A:75:ASN:N	0.506
1	A:74:VAL:HB	A:78:LYS:HD2	0.506
1	A:297:TYR:CE2	A:314:GLU:CG	0.506
1	B:190:LEU:CG	B:191:TRP:CZ3	0.506
1	B:259:ARG:CB	D:26:PRO:HD3	0.506
1	A:259:ARG:CD	C:25:PRO:HG3	0.506
1	A:123:VAL:CG1	A:124:ASN:H	0.506
1	A:2:LEU:C	A:2:LEU:HD23	0.505
1	A:214:ILE:HG22	A:218:LEU:HG	0.505
1	A:228:LEU:CD2	A:263:PHE:CE2	0.505
1	A:256:PRO:CD	C:25:PRO:HB3	0.505
1	A:319:GLN:NE2	A:320:LYS:HD2	0.505
1	B:22:MET:HE1	B:59:ARG:HH21	0.505
1	B:63:VAL:HG22	B:72:ASN:ND2	0.505
1	B:315:TYR:CD1	B:315:TYR:N	0.505
1	C:10:THR:H	C:13:ASP:HA	0.505
1	B:260:GLU:O	D:26:PRO:HG2	0.505
1	B:82:PHE:HE1	B:90:GLY:N	0.505

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:101:ILE:HG21	A:124:ASN:CA	0.504
1	A:256:PRO:CB	C:25:PRO:HB3	0.504
1	A:309:ASN:HB2	A:311:PRO:CD	0.504
1	B:55:GLU:CG	B:81:VAL:HG11	0.504
1	B:256:PRO:HD2	D:26:PRO:HA	0.504
1	B:287:HIS:HB3	B:290:LEU:CD1	0.504
1	C:3:GLU:CD	C:3:GLU:H	0.504
1	A:258:GLY:N	C:26:PRO:CD	0.504
1	A:191:TRP:CA	D:44:GLY:HA2	0.504
1	A:23:GLU:HG3	A:24:LYS:N	0.503
1	A:179:TYR:C	A:182:GLU:HG3	0.503
1	A:288:TRP:CD2	A:323:VAL:CG1	0.503
1	A:298:VAL:HG12	A:313:ASP:OD1	0.503
1	A:341:LYS:CG	A:380:LEU:HD23	0.503
1	B:26:VAL:HG11	B:44:MET:SD	0.503
1	B:184:ARG:CG	B:217:TYR:CD1	0.503
1	B:220:CYS:CB	B:351:PHE:CE1	0.503
1	A:33:LEU:CD1	A:162:TYR:CG	0.502
1	A:101:ILE:HG22	A:125:MET:O	0.502
1	A:223:TYR:CE2	A:225:VAL:CG2	0.502
1	A:311:PRO:CG	C:18:PRO:HD2	0.502
1	A:217:TYR:HE1	A:367:ILE:CD1	0.502
1	A:391:LEU:C	A:392:GLU:C	0.502

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:219:ASN:HB3	B:355:LYS:HB3	0.502
1	B:294:LEU:HG	B:313:ASP:HB2	0.502
1	A:16:GLN:CD	B:171:ARG:HH22	0.501
1	A:27:HIS:HB2	A:68:LYS:CB	0.501
1	A:202:ASP:CG	A:203:ILE:H	0.501
1	A:299:ALA:C	A:345:ILE:HG21	0.501
1	A:393:ASN:HA	A:396:ASP:OD2	0.501
1	B:30:LEU:HA	B:162:TYR:HE1	0.501
1	B:113:TYR:CZ	B:117:LYS:HD3	0.501
1	B:45:PHE:O	B:138:ALA:HA	0.501
1	B:184:ARG:CD	B:217:TYR:CD1	0.501
1	B:209:LYS:CB	C:47:GLY:CA	0.501
1	B:336:LEU:HD11	B:368:ILE:HG22	0.501
1	C:28:PHE:O	C:30:GLN:N	0.501
1	A:182:GLU:CG	B:182:GLU:CB	0.500
1	A:196:VAL:HA	A:206:GLN:NE2	0.500
1	A:259:ARG:HD3	C:25:PRO:CG	0.500
1	B:44:MET:HB2	B:60:LEU:CB	0.500
1	B:184:ARG:CB	B:217:TYR:CD1	0.500
1	B:360:PHE:CE1	B:368:ILE:CG1	0.500
1	B:340:ASN:ND2	B:379:VAL:HG11	0.500
1	C:9:LEU:N	C:9:LEU:HD22	0.500
1	A:308:MET:SD	C:11:THR:HG21	0.500

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:256:PRO:HD3	D:28:PHE:H	0.500
1	A:101:ILE:HD11	A:107:ASN:OD1	0.499
1	A:168:LEU:HD23	B:168:LEU:CD2	0.499
1	A:207:PHE:CE2	A:379:VAL:HG11	0.499
1	A:234:LYS:CE	A:240:TRP:CD1	0.499
1	A:288:TRP:CE3	A:323:VAL:CG1	0.499
1	A:298:VAL:HG23	A:299:ALA:N	0.499
1	A:338:ILE:HD11	A:375:LEU:O	0.499
1	A:340:ASN:HB2	A:346:VAL:CG2	0.499
1	A:306:ASN:HD22	A:360:PHE:HB2	0.499
1	A:374:PHE:CE1	B:193:ALA:CB	0.499
1	B:375:LEU:C	B:375:LEU:HD23	0.499
1	A:192:SER:CA	D:46:GLN:HG3	0.499
1	A:256:PRO:HB2	C:23:LYS:CB	0.498
1	A:297:TYR:CD2	C:26:PRO:CB	0.498
1	B:59:ARG:CA	B:74:VAL:HG11	0.498
1	B:105:LYS:HE3	B:106:LYS:HG3	0.498
1	B:135:GLU:CB	B:137:LEU:HB2	0.498
1	B:132:GLN:NE2	B:175:THR:HG23	0.498
1	B:341:LYS:HB2	B:380:LEU:HD12	0.498
1	A:191:TRP:CB	D:45:VAL:H	0.498
1	A:101:ILE:HG21	A:124:ASN:HB2	0.497
1	A:207:PHE:CE2	A:379:VAL:CG1	0.497

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:228:LEU:CD2	A:263:PHE:CD2	0.497
1	A:294:LEU:HD21	A:333:VAL:HG23	0.497
1	A:376:GLY:HA2	A:379:VAL:HG22	0.497
1	A:377:TRP:CD2	B:197:PHE:CE2	0.497
1	B:137:LEU:O	B:137:LEU:HD13	0.497
1	B:270:ILE:HG23	B:276:GLU:H	0.497
1	B:297:TYR:CZ	B:301:ASN:CB	0.497
1	A:31:GLN:HB2	A:65:PRO:HA	0.496
1	A:135:GLU:HG2	A:174:HIS:ND1	0.496
1	A:190:LEU:HD11	B:373:GLN:NE2	0.496
1	A:197:PHE:CD1	A:198:GLU:N	0.496
1	A:310:ALA:HB2	C:16:THR:HG22	0.496
1	A:374:PHE:CE1	B:193:ALA:HB1	0.496
1	B:29:THR:HG21	B:166:ILE:CD1	0.496
1	B:218:LEU:CD1	B:351:PHE:CE2	0.496
1	B:235:GLU:O	B:236:PHE:HB2	0.496
1	B:269:TYR:CE2	B:277:ILE:CD1	0.496
1	B:332:ASN:C	B:332:ASN:HD22	0.496
1	C:37:LYS:HB2	C:37:LYS:NZ	0.496
1	D:22:ARG:HG2	D:24:GLY:N	0.496
1	A:209:LYS:O	D:47:GLY:N	0.496
1	A:132:GLN:HG2	A:135:GLU:N	0.495
1	A:209:LYS:CA	D:46:GLN:C	0.495

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:336:LEU:HD12	A:372:THR:HG21	0.495
1	A:201:THR:O	A:382:THR:HA	0.495
1	B:37:LEU:HD11	B:145:LYS:HE2	0.495
1	B:82:PHE:CD2	B:114:LEU:HD23	0.495
1	B:132:GLN:HB2	B:135:GLU:OE2	0.495
1	B:198:GLU:HB3	C:49:GLY:O	0.495
1	B:207:PHE:CE1	B:225:VAL:HG21	0.495
1	B:269:TYR:CD1	B:271:LEU:CD2	0.495
1	B:314:GLU:O	B:315:TYR:HB3	0.495
1	B:259:ARG:HG3	D:26:PRO:HD3	0.495
1	A:41:ARG:HB2	A:62:ASN:C	0.494
1	A:130:ILE:CD1	A:140:VAL:HG23	0.494
1	A:185:ARG:HD3	B:182:GLU:OE2	0.494
1	A:297:TYR:CG	A:314:GLU:HB2	0.494
1	A:223:TYR:OH	A:349:ALA:HB1	0.494
1	A:76:PRO:HG2	A:358:LYS:HE2	0.494
1	B:126:MET:HE1	B:159:PHE:HB2	0.494
1	B:191:TRP:HB3	C:46:GLN:CA	0.494
1	B:207:PHE:CD2	B:225:VAL:HG11	0.494
1	B:184:ARG:CB	B:217:TYR:CZ	0.494
1	B:336:LEU:CD1	B:368:ILE:CG2	0.494
1	A:139:VAL:O	A:139:VAL:HG13	0.493
1	A:162:TYR:HE1	A:166:ILE:HD12	0.493

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:270:ILE:HD11	A:274:LYS:HB2	0.493
1	B:75:ASN:HB3	B:77:ASP:N	0.493
1	B:125:MET:HE1	F:1:35G:O2P	0.493
1	B:193:ALA:CA	B:374:PHE:CZ	0.493
1	B:351:PHE:CD1	B:360:PHE:HE2	0.493
1	D:32:GLN:HG2	D:37:LYS:O	0.493
1	A:297:TYR:HE1	A:301:ASN:ND2	0.493
1	A:337:PRO:HA	A:345:ILE:HD11	0.492
1	B:257:ASP:CB	B:300:GLU:HB3	0.492
1	B:334:LEU:HD12	B:336:LEU:CD1	0.492
1	C:22:ARG:C	C:23:LYS:HD2	0.492
1	A:148:ALA:O	A:149:SER:HB2	0.491
1	A:197:PHE:CG	B:377:TRP:HB2	0.491
1	A:319:GLN:CD	A:330:ILE:HG13	0.491
1	A:319:GLN:CB	A:322:PRO:HD2	0.491
1	B:37:LEU:HD13	B:155:ASP:HB3	0.491
1	B:227:LEU:HD13	B:228:LEU:C	0.491
1	B:394:ARG:HG3	B:395:LYS:N	0.491
1	B:256:PRO:N	D:28:PHE:N	0.491
1	A:288:TRP:CE3	A:323:VAL:HG11	0.490
1	B:59:ARG:HG3	B:74:VAL:HG21	0.490
1	B:76:PRO:CG	B:358:LYS:HG2	0.490
1	B:261:VAL:HG23	B:296:THR:OG1	0.490

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	D:13:ASP:O	D:15:PRO:HD3	0.490
1	D:32:GLN:HB2	D:38:SER:HA	0.490
1	A:50:ARG:HH22	A:308:MET:HE3	0.489
1	B:92:VAL:CG1	B:129:PRO:HD3	0.489
1	B:209:LYS:C	C:47:GLY:HA2	0.489
1	B:191:TRP:CG	B:213:THR:HG22	0.489
1	B:217:TYR:CD1	B:218:LEU:N	0.489
1	A:131:THR:HG22	A:132:GLN:N	0.488
1	B:162:TYR:CD2	B:163:LEU:CD2	0.488
1	B:179:TYR:O	B:182:GLU:HB3	0.488
1	B:246:GLU:HA	D:29:LYS:HZ2	0.488
1	B:314:GLU:C	B:315:TYR:HD1	0.488
1	A:188:MET:CB	A:217:TYR:CE2	0.487
1	A:279:VAL:O	A:279:VAL:HG13	0.487
1	A:372:THR:HG23	A:373:GLN:N	0.487
1	A:377:TRP:CA	A:377:TRP:CE3	0.487
1	B:25:ILE:C	B:25:ILE:HD13	0.487
1	B:100:ASN:ND2	B:151:PHE:HB2	0.487
1	B:207:PHE:CD2	B:267:ILE:HG21	0.487
1	B:294:LEU:HD22	B:295:PRO:HD3	0.487
1	B:329:VAL:HG21	D:8:ASN:ND2	0.487
1	B:86:ILE:CD1	B:86:ILE:H	0.487
1	B:362:GLU:CG	B:363:TYR:H	0.487

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:366:GLN:C	A:369:GLU:HG3	0.486
1	B:86:ILE:N	B:86:ILE:HD13	0.486
1	B:206:GLN:HG3	B:378:SER:OG	0.486
1	B:228:LEU:HD22	B:262:ASN:C	0.486
1	B:287:HIS:ND1	B:290:LEU:HD13	0.486
1	B:397:ILE:HD12	B:398:ALA:N	0.486
1	A:258:GLY:N	C:26:PRO:HG3	0.486
1	A:33:LEU:HD11	A:162:TYR:CG	0.485
1	A:58:THR:O	A:78:LYS:HG3	0.485
1	A:297:TYR:CE1	A:301:ASN:CG	0.485
1	A:319:GLN:HG3	A:352:TYR:CE1	0.485
1	A:378:SER:HB3	D:46:GLN:HE22	0.485
1	A:389:ASN:HD21	A:390:LYS:CD	0.485
1	B:37:LEU:HD21	B:151:PHE:CE2	0.485
1	B:83:PRO:CD	B:86:ILE:HD11	0.485
1	B:228:LEU:HA	B:263:PHE:HA	0.485
1	D:11:THR:CG2	D:15:PRO:HG3	0.485
1	D:11:THR:HG23	D:15:PRO:HG3	0.485
1	A:197:PHE:CD2	B:377:TRP:CB	0.484
1	A:256:PRO:CG	C:23:LYS:HB3	0.484
1	A:49:SER:O	A:362:GLU:HB2	0.484
1	B:208:HIS:O	B:211:LEU:HD12	0.484
1	B:307:MET:HE1	B:333:VAL:HB	0.484

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:220:CYS:SG	B:352:TYR:HB3	0.484
1	B:387:LYS:C	B:391:LEU:HD22	0.484
1	A:132:GLN:HG3	A:134:LYS:H	0.483
1	A:168:LEU:HD23	B:168:LEU:HD23	0.483
1	A:195:LYS:HB3	D:46:GLN:CA	0.483
1	A:269:TYR:CE2	A:277:ILE:CG2	0.483
1	B:105:LYS:CE	B:106:LYS:HG3	0.483
1	B:193:ALA:CA	B:374:PHE:CE1	0.483
1	B:242:ILE:HG12	B:243:ARG:HG3	0.483
1	B:298:VAL:HG12	B:337:PRO:HB3	0.483
1	B:257:ASP:OD2	B:300:GLU:HA	0.483
1	C:23:LYS:CA	C:23:LYS:HZ3	0.483
1	D:43:LYS:HB3	D:50:ASP:HB2	0.483
1	C:1:MET:CG	C:2:SER:H	0.483
1	A:228:LEU:CD2	A:263:PHE:CG	0.482
1	A:301:ASN:CG	A:302:GLY:H	0.482
1	A:341:LYS:HD2	A:380:LEU:HD22	0.482
1	A:188:MET:SD	A:371:LEU:HA	0.482
1	B:174:HIS:O	B:178:LEU:HG	0.482
1	C:45:VAL:CG2	C:49:GLY:H	0.482
1	B:259:ARG:NH1	D:25:PRO:HG3	0.482
1	A:135:GLU:HG2	A:137:LEU:HD13	0.481
1	A:150:GLU:HG2	A:151:PHE:N	0.481

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:200:LEU:CD1	A:385:TYR:HD1	0.481
1	A:303:PHE:HB2	C:30:GLN:CA	0.481
1	A:308:MET:HG3	C:11:THR:HB	0.481
1	A:339:VAL:HG12	A:340:ASN:O	0.481
1	B:188:MET:HE1	B:191:TRP:HE1	0.481
1	B:255:THR:CA	D:26:PRO:O	0.481
1	B:258:GLY:CA	B:297:TYR:CD2	0.481
1	B:270:ILE:CG2	B:276:GLU:H	0.481
1	B:321:GLY:N	B:322:PRO:HD3	0.481
1	B:366:GLN:HA	B:369:GLU:HG2	0.481
1	D:4:ASN:N	D:5:PRO:HD2	0.481
1	A:45:PHE:HB2	A:139:VAL:CG1	0.480
1	A:59:ARG:HG2	A:78:LYS:CD	0.480
1	A:128:ILE:HG22	A:129:PRO:N	0.480
1	A:166:ILE:HG23	A:167:SER:N	0.480
1	A:227:LEU:HD11	A:265:LYS:HE2	0.480
1	A:383:ASP:O	A:387:LYS:HG2	0.480
1	B:320:LYS:HA	B:320:LYS:HE2	0.480
1	B:351:PHE:CE2	B:368:ILE:HD11	0.480
1	A:193:ALA:CB	B:374:PHE:CE2	0.480
1	B:341:LYS:CB	B:380:LEU:HB2	0.480
1	B:191:TRP:O	C:46:GLN:N	0.480
1	A:59:ARG:HA	A:78:LYS:CD	0.479

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:196:VAL:HG22	A:378:SER:CB	0.479
1	A:204:GLU:HG2	A:265:LYS:HD2	0.479
1	A:228:LEU:HD21	A:263:PHE:CE2	0.479
1	A:336:LEU:HD21	A:351:PHE:CE1	0.479
1	B:185:ARG:HD3	B:363:TYR:OH	0.479
1	B:211:LEU:HD13	B:269:TYR:CD2	0.479
1	B:258:GLY:N	B:300:GLU:HG2	0.479
1	B:207:PHE:HE1	B:375:LEU:CD1	0.479
1	B:340:ASN:ND2	B:379:VAL:HB	0.479
1	B:391:LEU:C	B:392:GLU:C	0.479
1	C:5:PRO:CG	C:14:ALA:HB3	0.479
1	D:6:THR:HG23	D:7:THR:N	0.479
1	A:228:LEU:CD2	A:263:PHE:CD1	0.478
1	A:338:ILE:HG12	A:376:GLY:HA2	0.478
1	B:69:PHE:CD2	B:70:GLU:N	0.478
1	B:184:ARG:CB	B:217:TYR:CE1	0.478
1	B:392:GLU:O	B:395:LYS:HB2	0.478
1	D:22:ARG:O	D:23:LYS:HD3	0.478
1	A:25:ILE:C	A:25:ILE:HD12	0.477
1	A:29:THR:HG22	A:33:LEU:HD21	0.477
1	A:41:ARG:HD3	A:143:LEU:CB	0.477
1	A:162:TYR:CD2	A:163:LEU:N	0.477
1	A:311:PRO:HA	C:18:PRO:O	0.477

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:56:VAL:HG22	B:57:ALA:N	0.477
1	B:188:MET:SD	B:217:TYR:CD2	0.477
1	B:308:MET:HB3	D:14:ALA:O	0.477
1	B:308:MET:HG2	B:309:ASN:OD1	0.477
1	C:45:VAL:HG21	C:49:GLY:N	0.477
1	A:15:ILE:HD13	A:25:ILE:HG21	0.476
1	A:303:PHE:CD2	A:304:ILE:N	0.476
1	A:230:MET:SD	A:342:LYS:HE2	0.476
1	B:45:PHE:HA	B:58:THR:HA	0.476
1	B:181:ILE:CD1	B:363:TYR:CD1	0.476
1	B:206:GLN:HB2	B:382:THR:CG2	0.476
1	B:352:TYR:CG	B:353:ASN:N	0.476
1	A:96:LYS:C	A:129:PRO:HG2	0.475
1	A:137:LEU:CB	A:170:LEU:HG	0.475
1	A:190:LEU:HD12	A:191:TRP:CD1	0.475
1	A:342:LYS:CG	A:346:VAL:HG12	0.475
1	B:83:PRO:HD2	B:86:ILE:HD11	0.475
1	B:199:GLU:HG3	B:200:LEU:N	0.475
1	B:213:THR:HB	C:46:GLN:HA	0.475
1	B:304:ILE:HD11	B:334:LEU:CD2	0.475
1	B:13:THR:HG23	B:14:GLU:N	0.475
1	B:110:PHE:CG	B:111:SER:N	0.475
1	A:230:MET:HE2	A:238:ASP:OD1	0.474

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:258:GLY:CA	A:297:TYR:HD2	0.474
1	A:268:ASP:CG	A:278:LYS:HB3	0.474
1	A:295:PRO:C	A:348:VAL:HG21	0.474
1	A:310:ALA:HB1	A:317:THR:O	0.474
1	A:365:GLU:HA	A:368:ILE:HD13	0.474
1	A:388:MET:O	A:392:GLU:HB2	0.474
1	B:22:MET:HE3	B:173:HIS:CG	0.474
1	B:33:LEU:HB2	B:162:TYR:CD1	0.474
1	B:194:ASN:CA	B:197:PHE:CE2	0.474
1	C:23:LYS:O	C:25:PRO:HB2	0.474
1	B:79:GLU:HB3	D:14:ALA:HB2	0.474
1	A:164:ASN:HB3	B:12:LEU:HD21	0.473
1	A:170:LEU:C	A:170:LEU:HD23	0.473
1	A:205:ARG:HA	A:205:ARG:NE	0.473
1	A:297:TYR:CZ	A:301:ASN:HB3	0.473
1	A:334:LEU:HD13	A:335:SER:C	0.473
1	B:135:GLU:OE1	B:137:LEU:HB2	0.473
1	B:181:ILE:HG13	B:182:GLU:N	0.473
1	A:182:GLU:HA	B:182:GLU:HG3	0.473
1	B:256:PRO:HA	D:28:PHE:O	0.473
1	D:22:ARG:H	D:22:ARG:HH11	0.473
1	A:256:PRO:HB2	C:25:PRO:CB	0.472
1	A:340:ASN:CB	A:342:LYS:HB3	0.472

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:96:LYS:HA	B:129:PRO:CG	0.472
1	B:255:THR:CA	D:27:LYS:CA	0.472
1	B:338:ILE:CG2	B:375:LEU:HD22	0.472
1	C:19:THR:HG23	C:21:PRO:HD3	0.472
1	A:98:PHE:HD1	A:128:ILE:CG1	0.472
1	A:21:SER:HB3	A:23:GLU:HG2	0.471
1	A:32:ARG:HD3	A:32:ARG:O	0.471
1	A:44:MET:CG	A:138:ALA:CB	0.471
1	A:98:PHE:CD1	A:128:ILE:HG12	0.471
1	A:207:PHE:CE2	A:227:LEU:HD21	0.471
1	A:377:TRP:HB3	B:197:PHE:HB3	0.471
1	A:380:LEU:C	A:380:LEU:HD13	0.471
1	B:61:LEU:O	B:63:VAL:HG23	0.471
1	B:158:VAL:HG13	B:159:PHE:N	0.471
1	B:255:THR:C	D:27:LYS:C	0.471
1	B:257:ASP:CB	B:296:THR:O	0.471
1	B:297:TYR:CG	B:314:GLU:N	0.471
1	B:304:ILE:HD11	B:334:LEU:HD21	0.471
1	A:63:VAL:HA	A:67:SER:OG	0.470
1	A:82:PHE:CD1	A:114:LEU:CD2	0.470
1	A:158:VAL:HG13	A:159:PHE:N	0.470
1	A:270:ILE:O	A:275:GLU:HA	0.470
1	A:219:ASN:O	A:355:LYS:HB2	0.470

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:1:ARG:CG	B:2:LEU:H	0.470
1	B:126:MET:CE	B:159:PHE:CG	0.470
1	B:187:GLN:C	B:190:LEU:HD23	0.470
1	B:297:TYR:CE2	B:300:GLU:CD	0.470
1	B:317:THR:HG22	B:318:PHE:C	0.470
1	C:6:THR:CG2	C:15:PRO:HA	0.470
1	A:29:THR:CG2	A:162:TYR:CD1	0.469
1	A:137:LEU:HB2	A:170:LEU:HG	0.469
1	A:22:MET:CB	A:173:HIS:HB2	0.469
1	A:185:ARG:CB	A:367:ILE:HG13	0.469
1	A:315:TYR:HA	C:19:THR:HA	0.469
1	A:336:LEU:HD12	A:372:THR:HG22	0.469
1	B:25:ILE:HG23	B:26:VAL:N	0.469
1	B:29:THR:HG23	B:30:LEU:N	0.469
1	B:60:LEU:CD1	B:68:LYS:HB2	0.469
1	B:76:PRO:HB2	B:359:PRO:CD	0.469
1	A:179:TYR:HD1	B:178:LEU:HB3	0.469
1	B:185:ARG:O	B:189:LEU:HG	0.469
1	C:23:LYS:HG2	C:26:PRO:O	0.469
1	A:11:LEU:O	A:15:ILE:HG12	0.468
1	A:45:PHE:O	A:138:ALA:HA	0.468
1	A:228:LEU:HA	A:263:PHE:HA	0.468
1	A:319:GLN:CG	A:320:LYS:N	0.468

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:45:PHE:HB3	B:57:ALA:O	0.468
1	B:195:LYS:CB	C:47:GLY:HA3	0.468
1	B:350:THR:HG22	B:351:PHE:N	0.468
1	A:297:TYR:OH	C:30:GLN:HG3	0.468
1	B:61:LEU:CG	B:62:ASN:H	0.468
1	A:33:LEU:HD21	A:162:TYR:CD1	0.467
1	A:228:LEU:HD11	A:299:ALA:CB	0.467
1	B:98:PHE:HE1	B:128:ILE:HD11	0.467
1	B:190:LEU:CD2	B:191:TRP:CZ3	0.467
1	B:213:THR:HG21	C:45:VAL:O	0.467
1	B:292:SER:HB2	B:320:LYS:NZ	0.467
1	B:293:GLY:C	B:296:THR:HG22	0.467
1	B:387:LYS:HG3	B:388:MET:N	0.467
1	A:151:PHE:CE2	A:156:GLU:N	0.466
1	A:223:TYR:HE2	A:225:VAL:CG2	0.466
1	A:311:PRO:HB3	C:18:PRO:HG2	0.466
1	B:74:VAL:HG12	B:78:LYS:H	0.466
1	B:166:ILE:CG2	B:170:LEU:HD23	0.466
1	B:200:LEU:HD22	B:385:TYR:HD1	0.466
1	C:9:LEU:CD2	C:9:LEU:H	0.466
1	A:60:LEU:HD23	A:68:LYS:CB	0.465
1	A:203:ILE:CG2	A:207:PHE:CE2	0.465
1	A:288:TRP:CD1	A:321:GLY:C	0.465

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:319:GLN:HA	A:319:GLN:NE2	0.465
1	A:340:ASN:HB2	A:346:VAL:CG1	0.465
1	A:366:GLN:HA	A:369:GLU:HG3	0.465
1	B:214:ILE:HG13	C:46:GLN:NE2	0.465
1	D:8:ASN:C	D:10:THR:H	0.465
1	C:45:VAL:CG2	C:50:ASP:H	0.465
1	A:69:PHE:CD2	A:70:GLU:N	0.464
1	A:206:GLN:CB	A:382:THR:HG21	0.464
1	B:31:GLN:HB2	B:65:PRO:HA	0.464
1	B:130:ILE:HD11	B:140:VAL:CG2	0.464
1	B:207:PHE:CD1	B:375:LEU:HD11	0.464
1	B:228:LEU:C	B:228:LEU:HD13	0.464
1	B:254:LYS:C	D:27:LYS:CA	0.464
1	B:318:PHE:O	B:319:GLN:HB2	0.464
1	B:334:LEU:HD23	B:360:PHE:HB2	0.464
1	A:135:GLU:HB3	A:137:LEU:HD13	0.463
1	A:214:ILE:HD11	A:371:LEU:CD1	0.463
1	A:294:LEU:CD2	A:333:VAL:CG2	0.463
1	A:188:MET:HG3	A:371:LEU:HD13	0.463
1	A:393:ASN:O	A:396:ASP:HB2	0.463
1	B:30:LEU:CD1	B:60:LEU:HD11	0.463
1	A:185:ARG:HH21	B:186:SER:CB	0.463
1	B:256:PRO:HD3	D:27:LYS:C	0.463

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:352:TYR:CD2	B:353:ASN:N	0.463
1	B:48:ARG:HE	B:361:ASP:CG	0.463
1	A:50:ARG:HD2	A:51:ASN:OD1	0.462
1	A:111:SER:OG	A:113:TYR:HB3	0.462
1	A:137:LEU:CD2	A:170:LEU:HB2	0.462
1	A:324:ASP:HB2	A:326:THR:HG22	0.462
1	B:56:VAL:CG1	B:82:PHE:CD1	0.462
1	B:197:PHE:C	B:197:PHE:CD1	0.462
1	C:39:LYS:CB	C:40:PRO:HD3	0.462
1	C:41:PRO:C	C:42:LYS:HE2	0.462
1	A:184:ARG:CB	A:217:TYR:HD1	0.462
1	C:23:LYS:CB	C:25:PRO:O	0.462
1	A:195:LYS:CG	A:209:LYS:HD2	0.461
1	A:307:MET:HG3	A:333:VAL:O	0.461
1	B:30:LEU:HA	B:162:TYR:OH	0.461
1	B:319:GLN:OE1	B:352:TYR:HE1	0.461
1	A:46:ILE:HA	A:137:LEU:O	0.460
1	A:214:ILE:HD11	A:371:LEU:HD11	0.460
1	A:320:LYS:HD3	A:333:VAL:HG21	0.460
1	B:30:LEU:HA	B:162:TYR:CZ	0.460
1	B:80:THR:CB	B:118:THR:CG2	0.460
1	B:159:PHE:CZ	B:163:LEU:HD21	0.460
1	B:255:THR:C	D:26:PRO:C	0.460

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:41:ARG:HG3	A:62:ASN:HB3	0.459
1	A:74:VAL:HA	A:78:LYS:N	0.459
1	A:80:THR:CG2	A:82:PHE:CZ	0.459
1	A:203:ILE:HD13	A:382:THR:OG1	0.459
1	B:46:ILE:HG21	B:59:ARG:CD	0.459
1	B:56:VAL:CG1	B:82:PHE:CE2	0.459
1	B:222:ARG:HG2	B:270:ILE:HG13	0.459
1	B:256:PRO:HB3	D:28:PHE:O	0.459
1	A:214:ILE:N	D:45:VAL:CG1	0.459
1	A:73:LEU:CD1	A:75:ASN:CA	0.458
1	A:194:ASN:CB	D:49:GLY:CA	0.458
1	A:319:GLN:CG	A:320:LYS:H	0.458
1	A:342:LYS:CB	A:346:VAL:CG1	0.458
1	B:157:GLU:OE1	B:160:LYS:HE3	0.458
1	B:174:HIS:CE1	B:178:LEU:HD21	0.458
1	B:301:ASN:HA	D:31:ARG:N	0.458
1	B:288:TRP:HE1	B:323:VAL:HB	0.458
1	B:380:LEU:HD23	B:384:THR:OG1	0.458
1	A:192:SER:CA	D:45:VAL:HG22	0.458
1	B:128:ILE:CG2	B:129:PRO:N	0.458
1	A:45:PHE:HB3	A:57:ALA:O	0.457
1	A:208:HIS:CA	A:211:LEU:CD2	0.457
1	A:316:PHE:HB2	C:19:THR:HB	0.457

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:342:LYS:HB2	A:342:LYS:HZ3	0.457
1	A:342:LYS:HG2	A:346:VAL:HG12	0.457
1	B:157:GLU:HA	B:157:GLU:OE1	0.457
1	B:297:TYR:HB2	B:314:GLU:O	0.457
1	C:23:LYS:HB2	C:25:PRO:CA	0.457
1	B:53:ILE:CG2	B:54:PRO:N	0.457
1	A:207:PHE:CZ	A:379:VAL:CG1	0.456
1	A:270:ILE:HG13	A:276:GLU:H	0.456
1	A:297:TYR:CE2	C:26:PRO:CA	0.456
1	B:26:VAL:CG1	B:44:MET:CE	0.456
1	B:57:ALA:CB	B:79:GLU:CG	0.456
1	B:59:ARG:O	B:60:LEU:HB2	0.456
1	B:200:LEU:HB3	B:385:TYR:CB	0.456
1	B:256:PRO:HD3	D:28:PHE:N	0.456
1	B:314:GLU:C	B:315:TYR:CD1	0.456
1	B:351:PHE:CD1	B:352:TYR:N	0.456
1	B:201:THR:O	B:382:THR:HA	0.456
1	C:44:GLY:C	C:45:VAL:HG13	0.456
1	A:197:PHE:CB	B:377:TRP:HE3	0.456
1	A:137:LEU:CD2	A:170:LEU:CG	0.455
1	B:25:ILE:HG21	B:169:VAL:CG1	0.455
1	B:60:LEU:CD1	B:63:VAL:CG2	0.455
1	B:37:LEU:CD1	B:155:ASP:HB2	0.455

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:193:ALA:HA	B:374:PHE:CZ	0.455
1	B:259:ARG:HB2	D:22:ARG:CA	0.455
1	B:294:LEU:HD21	B:335:SER:OG	0.455
1	D:32:GLN:NE2	D:39:LYS:H	0.455
1	A:297:TYR:CE1	A:301:ASN:ND2	0.454
1	A:315:TYR:CG	A:316:PHE:N	0.454
1	A:210:ALA:N	D:46:GLN:HA	0.454
1	A:83:PRO:HG2	A:86:ILE:CD1	0.453
1	A:328:TRP:HD1	A:352:TYR:CE2	0.453
1	A:380:LEU:HD12	B:197:PHE:HB2	0.453
1	A:389:ASN:ND2	A:390:LYS:HD3	0.453
1	B:257:ASP:C	B:297:TYR:HA	0.453
1	B:295:PRO:HB3	B:348:VAL:HG21	0.453
1	B:342:LYS:HB3	B:346:VAL:HG21	0.453
1	A:197:PHE:O	B:380:LEU:HD11	0.453
1	A:301:ASN:N	C:26:PRO:HG2	0.453
1	C:27:LYS:CB	C:31:ARG:CB	0.453
1	C:36:PHE:CD1	C:37:LYS:N	0.453
1	B:259:ARG:NH2	D:22:ARG:HG3	0.453
1	A:50:ARG:HG3	A:306:ASN:HB3	0.452
1	A:297:TYR:CE2	C:26:PRO:HA	0.452
1	B:126:MET:HE3	B:159:PHE:CG	0.452
1	B:135:GLU:CB	B:137:LEU:CA	0.452

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	D:23:LYS:HB3	D:27:LYS:HB2	0.452
1	B:64:THR:CG2	B:65:PRO:N	0.452
1	B:257:ASP:H	B:300:GLU:CB	0.452
1	A:59:ARG:CG	A:78:LYS:CE	0.451
1	A:168:LEU:CD2	B:168:LEU:CD2	0.451
1	A:183:SER:HA	B:363:TYR:OH	0.451
1	A:185:ARG:CA	A:367:ILE:CD1	0.451
1	A:190:LEU:HD12	A:191:TRP:HD1	0.451
1	A:214:ILE:HG13	D:45:VAL:CG2	0.451
1	A:227:LEU:HD11	A:265:LYS:CE	0.451
1	A:193:ALA:CA	A:374:PHE:CZ	0.451
1	A:206:GLN:OE1	A:382:THR:HG22	0.451
1	B:184:ARG:CB	B:217:TYR:CG	0.451
1	B:292:SER:HB3	B:317:THR:HA	0.451
1	B:340:ASN:CB	B:342:LYS:CB	0.451
1	B:392:GLU:HA	B:395:LYS:HD2	0.451
1	A:234:LYS:HE2	A:240:TRP:HD1	0.450
1	A:340:ASN:HB3	A:342:LYS:N	0.450
1	B:213:THR:CG2	C:46:GLN:HA	0.450
1	C:45:VAL:CB	C:49:GLY:HA3	0.450
1	A:288:TRP:HZ2	A:318:PHE:CB	0.450
1	A:135:GLU:CB	A:137:LEU:HD13	0.449
1	A:307:MET:SD	A:312:ALA:HB3	0.449

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:380:LEU:C	A:380:LEU:HD22	0.449
1	A:397:ILE:HG23	A:398:ALA:N	0.449
1	B:22:MET:HB3	B:173:HIS:HB2	0.449
1	B:30:LEU:CD1	B:60:LEU:CD1	0.449
1	B:200:LEU:C	B:201:THR:HG23	0.449
1	B:340:ASN:CB	B:346:VAL:CG2	0.449
1	A:236:PHE:HD1	A:236:PHE:O	0.449
1	A:64:THR:OG1	A:65:PRO:HD2	0.448
1	A:128:ILE:HG21	A:163:LEU:HD23	0.448
1	A:180:ASN:O	A:184:ARG:HG2	0.448
1	A:257:ASP:C	A:297:TYR:HA	0.448
1	A:265:LYS:HZ1	A:267:ILE:HG23	0.448
1	A:298:VAL:CG1	A:313:ASP:CB	0.448
1	B:47:CYS:O	B:48:ARG:HG3	0.448
1	B:60:LEU:CG	B:63:VAL:CG2	0.448
1	B:64:THR:CG2	B:65:PRO:HD2	0.448
1	B:188:MET:CB	B:371:LEU:CD2	0.448
1	B:292:SER:CB	B:315:TYR:CE2	0.448
1	B:333:VAL:CG1	B:350:THR:CG2	0.448
1	C:28:PHE:CG	C:29:LYS:O	0.448
1	A:257:ASP:N	C:26:PRO:CD	0.448
1	A:60:LEU:CD2	A:68:LYS:CB	0.447
1	A:196:VAL:HG21	A:378:SER:HB3	0.447

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:283:PRO:CG	A:290:LEU:HD11	0.447
1	A:309:ASN:C	A:311:PRO:HD2	0.447
1	B:59:ARG:HG3	B:74:VAL:CG2	0.447
1	B:135:GLU:CB	B:137:LEU:CB	0.447
1	B:194:ASN:HB2	C:45:VAL:CA	0.447
1	B:218:LEU:HD11	B:351:PHE:CE2	0.447
1	B:297:TYR:CD2	B:300:GLU:CG	0.447
1	B:336:LEU:CD2	B:369:GLU:CA	0.447
1	B:49:SER:CB	B:362:GLU:HB3	0.447
1	B:314:GLU:OE1	D:18:PRO:HB2	0.447
1	A:195:LYS:N	D:49:GLY:CA	0.447
1	A:328:TRP:HD1	A:352:TYR:OH	0.447
1	A:9:PHE:O	A:13:THR:HG23	0.446
1	A:121:THR:HG22	A:122:THR:H	0.446
1	A:135:GLU:CA	A:137:LEU:HA	0.446
1	A:185:ARG:CZ	A:363:TYR:CE1	0.446
1	A:319:GLN:CG	A:352:TYR:CE1	0.446
1	A:342:LYS:CG	A:346:VAL:CG1	0.446
1	B:44:MET:HE1	B:166:ILE:HG21	0.446
1	B:128:ILE:N	B:128:ILE:HD12	0.446
1	B:130:ILE:CD1	B:140:VAL:CG2	0.446
1	B:195:LYS:CG	B:196:VAL:N	0.446
1	B:257:ASP:HB2	B:300:GLU:CB	0.446

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:125:MET:CE	A:127:ALA:CB	0.445
1	A:127:ALA:HB2	A:141:MET:HE2	0.445
1	A:208:HIS:C	A:211:LEU:HD23	0.445
1	A:294:LEU:HD11	A:307:MET:SD	0.445
1	A:319:GLN:CD	A:330:ILE:HB	0.445
1	A:340:ASN:CB	A:346:VAL:CG1	0.445
1	B:33:LEU:HG	B:159:PHE:CD1	0.445
1	B:60:LEU:HG	B:63:VAL:CG2	0.445
1	B:192:SER:CB	B:195:LYS:HZ2	0.445
1	B:301:ASN:HD21	B:303:PHE:CB	0.445
1	B:341:LYS:CB	B:380:LEU:HG	0.445
1	C:22:ARG:CZ	C:22:ARG:HB3	0.445
1	C:40:PRO:CB	C:41:PRO:HD3	0.445
1	A:310:ALA:H	C:17:GLY:N	0.445
1	A:28:LYS:C	A:28:LYS:HD2	0.444
1	A:163:LEU:C	A:166:ILE:HG22	0.444
1	A:270:ILE:CG1	A:276:GLU:HG2	0.444
1	A:297:TYR:CD1	A:313:ASP:C	0.444
1	A:336:LEU:CD2	A:336:LEU:N	0.444
1	B:192:SER:HB2	B:195:LYS:HZ2	0.444
1	B:294:LEU:O	B:313:ASP:HB3	0.444
1	B:319:GLN:C	B:322:PRO:HD3	0.444
1	A:316:PHE:N	C:19:THR:CB	0.444

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:256:PRO:CD	D:27:LYS:CA	0.444
1	B:303:PHE:HD1	D:32:GLN:HG3	0.444
1	A:209:LYS:CA	D:46:GLN:HA	0.444
1	A:225:VAL:HG12	A:226:GLY:N	0.444
1	A:59:ARG:CG	A:78:LYS:HE2	0.443
1	A:190:LEU:HB2	B:370:THR:HG23	0.443
1	A:338:ILE:CG2	A:346:VAL:CG2	0.443
1	A:358:LYS:HG2	A:359:PRO:O	0.443
1	B:159:PHE:CE2	B:163:LEU:CD2	0.443
1	B:334:LEU:CD1	B:336:LEU:CG	0.443
1	C:28:PHE:CD1	C:29:LYS:O	0.443
1	C:28:PHE:CD1	C:31:ARG:HA	0.443
1	A:7:ILE:HD12	A:10:GLU:CD	0.442
1	A:298:VAL:CG2	A:348:VAL:CG1	0.442
1	B:58:THR:HG22	B:80:THR:HG22	0.442
1	B:101:ILE:HG12	B:102:PRO:O	0.442
1	A:373:GLN:NE2	B:190:LEU:HD12	0.442
1	B:228:LEU:HD11	B:232:LYS:HG2	0.442
1	B:319:GLN:CB	B:322:PRO:HD3	0.442
1	A:101:ILE:HB	A:125:MET:SD	0.441
1	A:33:LEU:CD1	A:162:TYR:CD1	0.441
1	A:214:ILE:CG1	D:45:VAL:HG11	0.441
1	A:256:PRO:CB	C:26:PRO:HD2	0.441

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:228:LEU:CD2	A:263:PHE:CZ	0.441
1	B:58:THR:HG22	B:79:GLU:HA	0.441
1	B:148:ALA:HB1	B:150:GLU:O	0.441
1	B:159:PHE:CE1	B:162:TYR:CE2	0.441
1	B:201:THR:CG2	B:209:LYS:HZ2	0.441
1	B:223:TYR:OH	B:349:ALA:HB1	0.441
1	A:308:MET:CG	C:11:THR:CB	0.441
1	A:301:ASN:N	C:26:PRO:HB2	0.441
1	A:40:ASP:HB2	A:144:ASN:ND2	0.440
1	A:76:PRO:HG2	A:358:LYS:CE	0.440
1	A:137:LEU:HD11	A:174:HIS:CE1	0.440
1	A:190:LEU:HD23	B:370:THR:CG2	0.440
1	A:188:MET:SD	A:371:LEU:HB2	0.440
1	A:336:LEU:HD11	A:372:THR:HB	0.440
1	B:29:THR:C	B:162:TYR:HE1	0.440
1	B:63:VAL:HA	B:72:ASN:HD21	0.440
1	B:63:VAL:HG12	B:64:THR:O	0.440
1	B:196:VAL:CG1	B:378:SER:HB2	0.440
1	B:228:LEU:HD11	B:261:VAL:HG12	0.440
1	B:270:ILE:HG22	B:276:GLU:O	0.440
1	B:297:TYR:C	B:297:TYR:CD1	0.440
1	B:299:ALA:HA	B:345:ILE:CB	0.440
1	A:190:LEU:CB	B:370:THR:HG23	0.440

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:346:VAL:CG2	A:347:GLY:N	0.440
1	B:75:ASN:N	B:78:LYS:H	0.440
1	A:30:LEU:HD21	A:162:TYR:OH	0.439
1	A:59:ARG:HD3	A:68:LYS:HE2	0.439
1	A:101:ILE:HG12	A:104:VAL:HG13	0.439
1	A:214:ILE:HA	D:45:VAL:HG11	0.439
1	A:257:ASP:C	A:259:ARG:N	0.439
1	A:297:TYR:C	A:297:TYR:CD1	0.439
1	A:310:ALA:CA	C:17:GLY:HA3	0.439
1	B:26:VAL:CG2	B:170:LEU:CD2	0.439
1	B:127:ALA:HB2	B:141:MET:SD	0.439
1	B:306:ASN:HA	B:334:LEU:CD2	0.439
1	B:360:PHE:CE1	B:368:ILE:HG13	0.439
1	A:210:ALA:N	D:46:GLN:HG2	0.439
1	A:110:PHE:CG	A:111:SER:N	0.439
1	B:297:TYR:CB	B:314:GLU:N	0.439
1	A:228:LEU:HB3	A:232:LYS:HE3	0.438
1	A:234:LYS:CE	A:240:TRP:HD1	0.438
1	A:269:TYR:CD1	A:271:LEU:HD23	0.438
1	A:309:ASN:HB3	C:16:THR:C	0.438
1	B:60:LEU:N	B:74:VAL:CG2	0.438
1	B:259:ARG:HB3	D:26:PRO:N	0.438
1	B:270:ILE:O	B:275:GLU:HA	0.438

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:321:GLY:H	A:352:TYR:HE1	0.438
1	A:302:GLY:N	C:28:PHE:O	0.438
1	A:46:ILE:HD11	A:174:HIS:HE1	0.437
1	A:53:ILE:CD1	A:55:GLU:CG	0.437
1	A:137:LEU:CD2	A:170:LEU:CD1	0.437
1	A:209:LYS:HB3	D:46:GLN:HB3	0.437
1	A:298:VAL:CG2	A:348:VAL:CG2	0.437
1	A:314:GLU:HG2	C:20:THR:CB	0.437
1	A:319:GLN:CG	A:330:ILE:CB	0.437
1	B:137:LEU:CD1	B:170:LEU:CD1	0.437
1	B:326:THR:CB	B:328:TRP:CE3	0.437
1	B:384:THR:HA	B:387:LYS:HG2	0.437
1	A:23:GLU:CB	A:68:LYS:HZ1	0.436
1	A:41:ARG:CD	A:143:LEU:CB	0.436
1	A:76:PRO:O	A:78:LYS:HD3	0.436
1	A:45:PHE:HD2	A:139:VAL:HG13	0.436
1	A:163:LEU:HA	A:166:ILE:HG22	0.436
1	A:22:MET:CE	A:173:HIS:CB	0.436
1	A:192:SER:HA	D:46:GLN:CG	0.436
1	A:196:VAL:CG2	A:378:SER:CB	0.436
1	A:227:LEU:CD1	A:265:LYS:CE	0.436
1	A:265:LYS:NZ	A:267:ILE:HG23	0.436
1	A:297:TYR:CD1	A:297:TYR:O	0.436

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:301:ASN:CG	A:302:GLY:N	0.436
1	A:336:LEU:CD1	A:372:THR:CB	0.436
1	A:374:PHE:CD1	B:193:ALA:CB	0.436
1	A:202:ASP:O	A:382:THR:HG21	0.436
1	B:26:VAL:CG1	B:68:LYS:CD	0.436
1	B:26:VAL:CG1	B:44:MET:HE1	0.436
1	B:77:ASP:HA	D:13:ASP:CA	0.436
1	B:55:GLU:CB	B:81:VAL:CG1	0.436
1	B:104:VAL:HG23	B:124:ASN:HA	0.436
1	B:250:TYR:C	B:250:TYR:CD1	0.436
1	B:334:LEU:HD12	B:368:ILE:CG2	0.436
1	B:340:ASN:HB3	B:342:LYS:HB3	0.436
1	A:263:PHE:HE1	A:296:THR:CG2	0.436
1	A:46:ILE:O	A:46:ILE:HG23	0.436
1	A:25:ILE:CD1	A:169:VAL:CG2	0.435
1	A:41:ARG:HD2	A:41:ARG:N	0.435
1	A:41:ARG:CD	A:143:LEU:HD12	0.435
1	A:228:LEU:HD21	A:263:PHE:CD1	0.435
1	A:231:THR:HB	A:236:PHE:CB	0.435
1	A:310:ALA:CB	C:17:GLY:N	0.435
1	A:360:PHE:CD2	A:368:ILE:HD12	0.435
1	B:42:CYS:O	B:63:VAL:HB	0.435
1	B:228:LEU:CG	B:261:VAL:HG11	0.435

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:297:TYR:CZ	B:314:GLU:HG2	0.435
1	B:336:LEU:CB	B:337:PRO:HD2	0.435
1	B:360:PHE:CE1	B:368:ILE:HD11	0.435
1	B:385:TYR:C	B:385:TYR:CD2	0.435
1	A:30:LEU:HD23	A:162:TYR:CE1	0.434
1	A:82:PHE:CZ	A:114:LEU:CA	0.434
1	A:222:ARG:CZ	A:270:ILE:CG2	0.434
1	A:338:ILE:CG2	A:346:VAL:HG23	0.434
1	B:196:VAL:CG2	B:197:PHE:N	0.434
1	B:256:PRO:N	D:26:PRO:C	0.434
1	D:39:LYS:HG3	D:40:PRO:HD2	0.434
1	B:152:SER:H	B:155:ASP:CG	0.434
1	A:81:VAL:C	A:82:PHE:CG	0.433
1	A:55:GLU:OE1	A:81:VAL:HG21	0.433
1	A:62:ASN:ND2	A:120:TYR:CZ	0.433
1	A:312:ALA:O	A:313:ASP:HB2	0.433
1	B:137:LEU:HG	B:170:LEU:CD1	0.433
1	B:256:PRO:CG	D:28:PHE:HB2	0.433
1	A:256:PRO:O	C:25:PRO:CB	0.433
1	C:37:LYS:HB3	C:39:LYS:HZ1	0.433
1	B:81:VAL:HG12	B:82:PHE:N	0.433
1	B:84:LEU:CD1	B:84:LEU:H	0.433
1	A:128:ILE:CG2	A:163:LEU:CD2	0.432

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:194:ASN:HB2	D:44:GLY:HA3	0.432
1	A:266:ILE:CG2	A:280:ILE:CD1	0.432
1	A:362:GLU:HA	A:362:GLU:OE1	0.432
1	A:217:TYR:OH	A:367:ILE:HD11	0.432
1	A:351:PHE:HZ	A:371:LEU:HD23	0.432
1	B:74:VAL:CG1	B:78:LYS:H	0.432
1	B:274:LYS:HD2	B:274:LYS:N	0.432
1	B:336:LEU:HD22	B:368:ILE:C	0.432
1	B:255:THR:N	D:27:LYS:C	0.432
1	D:31:ARG:HG3	D:32:GLN:N	0.432
1	A:303:PHE:N	C:30:GLN:N	0.432
1	B:298:VAL:O	B:298:VAL:HG12	0.432
1	A:30:LEU:HD11	A:60:LEU:HG	0.431
1	A:231:THR:HB	A:236:PHE:HB3	0.431
1	B:166:ILE:CG2	B:170:LEU:CD2	0.431
1	B:288:TRP:CD1	B:323:VAL:CB	0.431
1	B:338:ILE:CD1	B:375:LEU:HD13	0.431
1	D:40:PRO:HA	D:41:PRO:HD2	0.431
1	A:193:ALA:HA	A:374:PHE:CE2	0.430
1	A:196:VAL:CG2	A:378:SER:HB3	0.430
1	A:292:SER:HA	A:316:PHE:O	0.430
1	B:214:ILE:HG23	B:217:TYR:O	0.430
1	B:297:TYR:CD1	B:297:TYR:O	0.430

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:315:TYR:HE2	B:317:THR:HA	0.430
1	B:256:PRO:O	D:26:PRO:HA	0.430
1	D:37:LYS:HB3	D:41:PRO:CG	0.430
1	A:228:LEU:HA	A:228:LEU:HD23	0.429
1	A:340:ASN:CG	A:379:VAL:HG23	0.429
1	A:185:ARG:NH1	A:363:TYR:CE1	0.429
1	B:56:VAL:CG1	B:82:PHE:CD2	0.429
1	B:59:ARG:C	B:74:VAL:CG2	0.429
1	B:88:ILE:HD11	B:104:VAL:CG1	0.429
1	B:128:ILE:HG23	B:129:PRO:HD2	0.429
1	B:304:ILE:CD1	B:334:LEU:HD21	0.429
1	C:22:ARG:O	C:23:LYS:HE2	0.429
1	A:121:THR:CG2	A:122:THR:N	0.429
1	A:329:VAL:CG1	A:330:ILE:N	0.429
1	C:10:THR:N	C:13:ASP:CA	0.429
1	A:201:THR:HG22	A:206:GLN:OE1	0.428
1	A:311:PRO:CD	C:18:PRO:HD2	0.428
1	B:43:SER:C	B:60:LEU:HD23	0.428
1	B:145:LYS:HB2	B:151:PHE:CZ	0.428
1	B:184:ARG:CG	B:217:TYR:CE1	0.428
1	B:244:LEU:HG	B:245:GLY:N	0.428
1	C:22:ARG:C	C:23:LYS:CE	0.428
1	B:391:LEU:CD2	B:392:GLU:N	0.428

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:77:ASP:O	D:12:GLY:O	0.428
1	A:22:MET:SD	A:26:VAL:CG2	0.427
1	A:130:ILE:HD12	A:138:ALA:HB3	0.427
1	A:214:ILE:CD1	A:371:LEU:HD11	0.427
1	A:257:ASP:HB2	A:300:GLU:HB2	0.427
1	A:307:MET:CE	A:333:VAL:HG22	0.427
1	B:41:ARG:HB3	B:62:ASN:CA	0.427
1	B:211:LEU:HD13	B:269:TYR:CE2	0.427
1	B:391:LEU:CG	B:392:GLU:N	0.427
1	A:300:GLU:OE1	C:26:PRO:C	0.427
1	A:46:ILE:HD11	A:137:LEU:CD1	0.426
1	A:64:THR:HG22	A:66:THR:O	0.426
1	A:307:MET:CG	A:312:ALA:HB3	0.426
1	B:257:ASP:C	B:259:ARG:N	0.426
1	B:272:HIS:CE1	B:328:TRP:CZ2	0.426
1	A:308:MET:SD	C:11:THR:CG2	0.426
1	C:42:LYS:CA	C:42:LYS:CE	0.426
1	D:36:PHE:CD2	D:37:LYS:N	0.426
1	A:92:VAL:HG13	A:93:ALA:N	0.426
1	A:326:THR:CG2	A:327:GLY:N	0.426
1	B:75:ASN:H	B:77:ASP:CB	0.426
1	B:345:ILE:O	B:345:ILE:HG13	0.426
1	A:188:MET:SD	A:371:LEU:CD1	0.426

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:179:TYR:O	A:182:GLU:HB2	0.425
1	A:194:ASN:C	D:49:GLY:CA	0.425
1	A:301:ASN:CA	C:28:PHE:O	0.425
1	B:134:LYS:HB2	B:174:HIS:HE2	0.425
1	B:126:MET:CE	B:159:PHE:CB	0.425
1	A:168:LEU:HD21	B:168:LEU:HD23	0.425
1	B:177:TYR:CE2	B:181:ILE:HG21	0.425
1	B:297:TYR:CG	B:314:GLU:CB	0.425
1	B:317:THR:HG22	B:319:GLN:HA	0.425
1	B:351:PHE:CD2	B:368:ILE:HD12	0.425
1	A:181:ILE:CG2	A:182:GLU:N	0.425
1	A:274:LYS:CD	A:274:LYS:H	0.425
1	B:198:GLU:CG	B:199:GLU:N	0.425
1	A:60:LEU:CD2	A:68:LYS:CA	0.424
1	A:79:GLU:C	C:11:THR:CG2	0.424
1	A:82:PHE:CE2	A:114:LEU:HD22	0.424
1	A:189:LEU:O	A:189:LEU:HD13	0.424
1	A:198:GLU:HA	A:198:GLU:OE1	0.424
1	A:266:ILE:CG2	A:280:ILE:HD11	0.424
1	A:365:GLU:CA	A:368:ILE:HD13	0.424
1	B:60:LEU:CD1	B:68:LYS:CB	0.424
1	B:61:LEU:HB2	B:78:LYS:HD3	0.424
1	B:62:ASN:ND2	B:120:TYR:CZ	0.424

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:127:ALA:C	B:128:ILE:HD12	0.424
1	C:10:THR:H	C:13:ASP:CA	0.424
1	C:20:THR:HA	C:21:PRO:HD2	0.424
1	D:38:SER:O	D:39:LYS:HB3	0.424
1	D:46:GLN:C	D:48:PHE:N	0.424
1	A:258:GLY:H	C:25:PRO:C	0.424
1	A:316:PHE:N	C:19:THR:CA	0.424
1	B:150:GLU:CG	B:151:PHE:N	0.424
1	A:7:ILE:HD12	A:10:GLU:OE2	0.423
1	A:41:ARG:HB2	A:62:ASN:CA	0.423
1	A:270:ILE:C	A:270:ILE:HD12	0.423
1	A:258:GLY:CA	A:297:TYR:HB2	0.423
1	A:310:ALA:HB3	C:17:GLY:H	0.423
1	A:334:LEU:C	A:334:LEU:CD1	0.423
1	B:71:ASP:HA	D:1:MET:H2	0.423
1	B:191:TRP:CG	B:213:THR:CG2	0.423
1	B:194:ASN:O	B:197:PHE:CD2	0.423
1	B:312:ALA:O	B:313:ASP:HB2	0.423
1	B:288:TRP:HD1	B:323:VAL:HB	0.423
1	C:36:PHE:C	C:36:PHE:CD1	0.423
1	A:298:VAL:CG2	A:299:ALA:N	0.423
1	B:25:ILE:CG2	B:26:VAL:N	0.423
1	A:46:ILE:HG21	A:78:LYS:CE	0.422

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:101:ILE:HG21	A:124:ASN:CB	0.422
1	A:143:LEU:HA	A:143:LEU:HD23	0.422
1	A:207:PHE:O	A:211:LEU:HD22	0.422
1	A:294:LEU:O	A:313:ASP:HB3	0.422
1	B:56:VAL:CG1	B:82:PHE:CG	0.422
1	B:64:THR:HG23	B:65:PRO:HD2	0.422
1	B:136:VAL:O	B:136:VAL:HG12	0.422
1	B:242:ILE:HG12	B:243:ARG:N	0.422
1	B:258:GLY:HA2	B:297:TYR:CD2	0.422
1	B:317:THR:CG2	B:319:GLN:HA	0.422
1	B:259:ARG:HE	D:22:ARG:HB2	0.422
1	A:100:ASN:H	A:100:ASN:HD22	0.422
1	B:206:GLN:HB3	B:206:GLN:HE21	0.422
1	A:33:LEU:HD13	A:162:TYR:CD2	0.421
1	A:30:LEU:HD13	A:60:LEU:HG	0.421
1	A:194:ASN:HA	A:197:PHE:HD2	0.421
1	A:272:HIS:CG	A:273:GLY:N	0.421
1	A:336:LEU:CD2	A:351:PHE:CE1	0.421
1	B:189:LEU:CD1	B:370:THR:CG2	0.421
1	B:235:GLU:OE2	B:240:TRP:CE3	0.421
1	A:301:ASN:H	C:26:PRO:HG2	0.421
1	C:27:LYS:CG	C:31:ARG:CG	0.421
1	A:48:ARG:HH12	A:50:ARG:HH21	0.421

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:345:ILE:H	B:345:ILE:HG22	0.421
1	A:82:PHE:CE1	A:113:TYR:HD2	0.420
1	A:214:ILE:HG13	D:45:VAL:HG11	0.420
1	A:260:GLU:HG2	A:296:THR:HG21	0.420
1	A:225:VAL:O	A:266:ILE:HA	0.420
1	A:292:SER:HB3	A:317:THR:HG23	0.420
1	B:194:ASN:CA	B:197:PHE:CD2	0.420
1	A:301:ASN:N	C:26:PRO:CB	0.420
1	A:27:HIS:CG	A:28:LYS:N	0.420
1	B:22:MET:SD	B:23:GLU:N	0.420
1	B:81:VAL:CG1	B:82:PHE:N	0.420
1	B:196:VAL:HG23	B:197:PHE:N	0.420
1	A:2:LEU:C	A:2:LEU:CD2	0.419
1	A:41:ARG:HG2	A:143:LEU:CD1	0.419
1	A:104:VAL:HG11	A:123:VAL:O	0.419
1	A:45:PHE:O	A:138:ALA:HB1	0.419
1	A:217:TYR:C	A:217:TYR:CD1	0.419
1	A:297:TYR:HB3	A:314:GLU:O	0.419
1	B:29:THR:HG23	B:162:TYR:CE1	0.419
1	B:37:LEU:HD21	B:151:PHE:HD2	0.419
1	B:70:GLU:HG3	B:71:ASP:H	0.419
1	B:256:PRO:HG3	D:28:PHE:HB2	0.419
1	B:272:HIS:CE1	B:328:TRP:NE1	0.419

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:158:VAL:CG1	A:159:PHE:N	0.419
1	B:13:THR:CG2	B:14:GLU:N	0.419
1	C:46:GLN:CG	C:47:GLY:H	0.419
1	A:308:MET:SD	C:11:THR:CB	0.419
1	A:72:ASN:O	A:74:VAL:HG13	0.418
1	A:82:PHE:CD1	A:113:TYR:CD2	0.418
1	A:92:VAL:HG22	A:129:PRO:CD	0.418
1	A:102:PRO:O	A:124:ASN:HB3	0.418
1	A:146:LEU:HD13	A:147:ASN:CG	0.418
1	A:168:LEU:HD13	B:15:ILE:HG12	0.418
1	A:197:PHE:CD1	B:380:LEU:HD12	0.418
1	A:315:TYR:HA	C:19:THR:CA	0.418
1	B:177:TYR:CE2	B:181:ILE:CG2	0.418
1	B:181:ILE:HD13	B:364:ASP:OD1	0.418
1	B:391:LEU:O	B:394:ARG:HG2	0.418
1	A:217:TYR:CG	A:218:LEU:N	0.418
1	B:76:PRO:HA	B:79:GLU:OE2	0.418
1	A:26:VAL:O	A:30:LEU:HG	0.417
1	A:128:ILE:HB	A:163:LEU:HD22	0.417
1	A:137:LEU:CB	A:170:LEU:CD1	0.417
1	A:175:THR:HA	A:178:LEU:HD12	0.417
1	A:223:TYR:CE2	A:225:VAL:HG22	0.417
1	B:80:THR:HB	B:118:THR:HG21	0.417

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:132:GLN:HB2	B:135:GLU:CD	0.417
1	B:227:LEU:HD13	B:228:LEU:O	0.417
1	B:294:LEU:HA	B:315:TYR:CD1	0.417
1	B:338:ILE:CG2	B:376:GLY:HA2	0.417
1	D:29:LYS:HG3	D:30:GLN:H	0.417
1	B:80:THR:O	B:80:THR:HG23	0.417
1	A:95:THR:CB	A:97:LYS:HG2	0.416
1	A:101:ILE:HG21	A:124:ASN:HA	0.416
1	A:182:GLU:HG2	B:182:GLU:CD	0.416
1	A:210:ALA:HB2	D:46:GLN:CG	0.416
1	A:318:PHE:CE1	A:322:PRO:HB2	0.416
1	A:331:LYS:CB	C:9:LEU:O	0.416
1	A:385:TYR:C	A:385:TYR:CD2	0.416
1	B:51:ASN:O	B:53:ILE:HD12	0.416
1	B:354:ARG:HG2	B:356:ASP:H	0.416
1	C:28:PHE:CE1	C:29:LYS:O	0.416
1	A:78:LYS:CD	A:78:LYS:H	0.416
1	A:397:ILE:CG2	A:398:ALA:N	0.416
1	A:256:PRO:O	C:25:PRO:HB3	0.416
1	A:82:PHE:CE1	A:113:TYR:CD2	0.415
1	A:82:PHE:CD1	A:114:LEU:HD22	0.415
1	A:213:THR:HG21	D:44:GLY:O	0.415
1	A:236:PHE:CD1	A:236:PHE:O	0.415

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:300:GLU:CA	C:26:PRO:CG	0.415
1	A:318:PHE:O	A:330:ILE:HG21	0.415
1	B:46:ILE:HG22	B:137:LEU:HD13	0.415
1	B:55:GLU:CG	B:81:VAL:CG1	0.415
1	B:191:TRP:HB3	B:213:THR:CG2	0.415
1	B:195:LYS:HA	C:49:GLY:HA3	0.415
1	B:292:SER:HB2	B:320:LYS:HZ3	0.415
1	B:315:TYR:HA	D:20:THR:HG21	0.415
1	B:334:LEU:HD11	B:336:LEU:HG	0.415
1	B:193:ALA:N	B:374:PHE:CE1	0.415
1	A:257:ASP:C	C:26:PRO:HD3	0.415
1	B:259:ARG:HB3	D:26:PRO:HD3	0.415
1	A:92:VAL:CG1	A:93:ALA:N	0.415
1	B:132:GLN:CG	B:133:GLY:N	0.415
1	A:37:LEU:C	A:37:LEU:CD2	0.414
1	A:101:ILE:CG2	A:124:ASN:HB2	0.414
1	A:162:TYR:CE1	A:166:ILE:HD12	0.414
1	A:185:ARG:HB3	A:367:ILE:HG13	0.414
1	A:203:ILE:HG22	A:227:LEU:HD11	0.414
1	A:256:PRO:HB3	C:26:PRO:O	0.414
1	A:266:ILE:HG22	A:283:PRO:HG3	0.414
1	A:288:TRP:CD1	A:319:GLN:O	0.414
1	A:319:GLN:CD	A:330:ILE:CB	0.414

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:345:ILE:HD11	A:348:VAL:HG22	0.414
1	B:11:LEU:HD22	B:25:ILE:CG1	0.414
1	B:42:CYS:O	B:63:VAL:HG23	0.414
1	B:195:LYS:HD3	B:210:ALA:CA	0.414
1	B:254:LYS:HD2	B:254:LYS:N	0.414
1	B:295:PRO:HB3	B:348:VAL:CG2	0.414
1	B:315:TYR:CD2	B:316:PHE:C	0.414
1	A:374:PHE:CE1	B:374:PHE:CZ	0.414
1	A:310:ALA:H	C:17:GLY:HA3	0.414
1	A:297:TYR:CZ	C:26:PRO:HB3	0.414
1	A:242:ILE:CG1	A:243:ARG:N	0.414
1	B:29:THR:CG2	B:30:LEU:N	0.414
1	D:6:THR:CG2	D:7:THR:N	0.414
1	A:107:ASN:ND2	A:110:PHE:HB2	0.413
1	A:135:GLU:CB	A:137:LEU:CA	0.413
1	A:135:GLU:CB	A:137:LEU:CD1	0.413
1	A:182:GLU:CA	B:182:GLU:CG	0.413
1	A:202:ASP:HA	A:382:THR:HB	0.413
1	A:318:PHE:HE1	A:322:PRO:HB2	0.413
1	A:336:LEU:CD1	A:369:GLU:CA	0.413
1	A:340:ASN:CG	A:379:VAL:CG2	0.413
1	B:58:THR:CG2	B:79:GLU:HA	0.413
1	B:337:PRO:CB	B:345:ILE:HD13	0.413

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	C:45:VAL:CB	C:49:GLY:CA	0.413
1	A:340:ASN:C	A:342:LYS:N	0.413
1	A:15:ILE:CD1	A:25:ILE:HG21	0.412
1	A:53:ILE:HD11	A:55:GLU:CG	0.412
1	A:75:ASN:HB3	A:77:ASP:N	0.412
1	A:137:LEU:CD1	A:174:HIS:CE1	0.412
1	A:214:ILE:CG2	A:218:LEU:HG	0.412
1	A:269:TYR:CD2	A:277:ILE:HG22	0.412
1	A:337:PRO:HA	A:345:ILE:CD1	0.412
1	A:352:TYR:CD2	A:353:ASN:OD1	0.412
1	A:373:GLN:O	A:377:TRP:CD1	0.412
1	B:184:ARG:HD2	B:217:TYR:HB2	0.412
1	B:259:ARG:HB2	D:22:ARG:HA	0.412
1	B:260:GLU:HA	B:296:THR:OG1	0.412
1	B:315:TYR:HA	D:20:THR:CG2	0.412
1	B:230:MET:HE3	B:342:LYS:HD2	0.412
1	B:375:LEU:C	B:375:LEU:CD2	0.412
1	A:310:ALA:CB	C:17:GLY:CA	0.412
1	C:44:GLY:O	C:45:VAL:HG13	0.412
1	D:36:PHE:CE2	D:41:PRO:CG	0.412
1	A:110:PHE:CD1	E:1:35G:O1P	0.412
1	A:22:MET:HE3	A:173:HIS:CG	0.411
1	A:194:ASN:CG	B:373:GLN:HE21	0.411

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:196:VAL:HA	A:206:GLN:HE22	0.411
1	A:266:ILE:HG23	A:280:ILE:HD11	0.411
1	A:315:TYR:HA	C:20:THR:N	0.411
1	B:137:LEU:C	B:137:LEU:CD1	0.411
1	B:188:MET:CE	B:191:TRP:NE1	0.411
1	B:226:GLY:HA2	B:266:ILE:HA	0.411
1	B:227:LEU:HD22	B:228:LEU:H	0.411
1	B:230:MET:HG2	B:239:GLU:HA	0.411
1	B:319:GLN:HE21	B:322:PRO:HB3	0.411
1	B:351:PHE:CD1	B:360:PHE:CZ	0.411
1	B:388:MET:CA	B:391:LEU:CD2	0.411
1	C:28:PHE:CD2	C:29:LYS:O	0.411
1	A:372:THR:CG2	A:373:GLN:N	0.411
1	B:158:VAL:CG1	B:159:PHE:N	0.411
1	A:23:GLU:HB2	A:68:LYS:HZ1	0.410
1	A:28:LYS:C	A:28:LYS:CD	0.410
1	A:181:ILE:C	A:181:ILE:HD13	0.410
1	A:301:ASN:C	C:28:PHE:O	0.410
1	A:365:GLU:CA	A:368:ILE:CD1	0.410
1	B:298:VAL:CG1	B:337:PRO:CA	0.410
1	D:22:ARG:HD3	D:22:ARG:N	0.410
1	A:118:THR:CG2	A:119:GLY:N	0.410
1	B:123:VAL:CG1	B:124:ASN:H	0.410

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:210:ALA:CA	D:46:GLN:H	0.410
1	A:27:HIS:CB	A:68:LYS:CB	0.409
1	A:49:SER:HB3	A:362:GLU:CB	0.409
1	A:61:LEU:HD13	C:2:SER:HA	0.409
1	A:68:LYS:HA	A:72:ASN:O	0.409
1	A:167:SER:CA	A:170:LEU:HD22	0.409
1	A:196:VAL:CG2	D:46:GLN:HE22	0.409
1	A:223:TYR:CD1	A:350:THR:O	0.409
1	A:294:LEU:HD13	A:320:LYS:NZ	0.409
1	B:60:LEU:CD1	B:63:VAL:HG21	0.409
1	B:26:VAL:HG11	B:68:LYS:HD2	0.409
1	B:23:GLU:O	B:68:LYS:HD3	0.409
1	B:195:LYS:CD	B:209:LYS:HB3	0.409
1	B:363:TYR:CD1	B:363:TYR:O	0.409
1	B:380:LEU:C	B:380:LEU:CD2	0.409
1	A:310:ALA:H	C:17:GLY:CA	0.409
1	C:30:GLN:HG2	C:31:ARG:O	0.409
1	B:70:GLU:CG	B:71:ASP:N	0.409
1	B:319:GLN:OE1	B:352:TYR:CE1	0.409
1	B:254:LYS:CB	D:27:LYS:O	0.409
1	A:33:LEU:CD2	A:162:TYR:CB	0.408
1	A:57:ALA:HB1	A:79:GLU:CD	0.408
1	A:101:ILE:HG23	A:102:PRO:C	0.408

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:209:LYS:C	D:46:GLN:C	0.408
1	B:27:HIS:HA	B:30:LEU:HD12	0.408
1	B:114:LEU:C	B:114:LEU:CD1	0.408
1	B:336:LEU:CD2	B:369:GLU:N	0.408
1	B:223:TYR:CZ	B:349:ALA:HB1	0.408
1	B:366:GLN:CA	B:369:GLU:HG2	0.408
1	B:380:LEU:O	B:380:LEU:HD23	0.408
1	D:11:THR:HG22	D:15:PRO:HD3	0.408
1	A:310:ALA:CB	C:17:GLY:H	0.408
1	B:308:MET:SD	D:16:THR:CG2	0.408
1	A:46:ILE:CG2	A:59:ARG:HB2	0.407
1	A:74:VAL:HB	A:78:LYS:CG	0.407
1	A:200:LEU:HD11	B:384:THR:HG21	0.407
1	A:340:ASN:HB2	A:346:VAL:HG22	0.407
1	A:336:LEU:CD1	A:372:THR:CG2	0.407
1	B:255:THR:C	D:27:LYS:CA	0.407
1	B:298:VAL:CG2	B:313:ASP:CB	0.407
1	D:11:THR:CG2	D:15:PRO:CG	0.407
1	A:188:MET:SD	A:189:LEU:N	0.407
1	B:203:ILE:CG2	B:204:GLU:N	0.407
1	B:238:ASP:HB3	B:239:GLU:H	0.407
1	C:10:THR:HG23	C:11:THR:N	0.407
1	A:82:PHE:CD1	A:114:LEU:HD23	0.406

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:270:ILE:HG12	A:276:GLU:HG2	0.406
1	A:331:LYS:HB2	A:353:ASN:HB3	0.406
1	B:113:TYR:CE2	B:117:LYS:HD3	0.406
1	B:145:LYS:NZ	B:148:ALA:HB2	0.406
1	B:198:GLU:HG3	B:199:GLU:N	0.406
1	B:207:PHE:CE1	B:375:LEU:CD1	0.406
1	B:303:PHE:CD2	B:304:ILE:O	0.406
1	B:259:ARG:HE	D:22:ARG:HG3	0.406
1	A:75:ASN:N	A:77:ASP:N	0.406
1	A:100:ASN:H	A:100:ASN:ND2	0.406
1	A:304:ILE:CD1	A:304:ILE:N	0.406
1	B:304:ILE:O	B:304:ILE:HG23	0.406
1	D:47:GLY:O	D:48:PHE:CD2	0.406
1	A:135:GLU:OE2	A:137:LEU:HD22	0.405
1	B:75:ASN:C	B:77:ASP:N	0.405
1	A:182:GLU:OE1	B:182:GLU:HB2	0.405
1	B:187:GLN:O	B:191:TRP:CD2	0.405
1	B:297:TYR:CD2	B:314:GLU:CB	0.405
1	B:185:ARG:CA	B:367:ILE:HD12	0.405
1	A:77:ASP:O	C:12:GLY:N	0.405
1	A:5:CYS:SG	B:5:CYS:CB	0.405
1	A:60:LEU:CD2	A:63:VAL:CG2	0.404
1	B:41:ARG:HD3	B:62:ASN:CG	0.404

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:67:SER:C	B:69:PHE:N	0.404
1	A:190:LEU:CD2	B:370:THR:HG23	0.404
1	C:24:GLY:HA3	C:25:PRO:HD2	0.404
1	D:39:LYS:HG2	D:40:PRO:HD2	0.404
1	D:43:LYS:CD	D:43:LYS:N	0.404
1	A:63:VAL:CG2	A:67:SER:HB2	0.403
1	A:167:SER:C	A:170:LEU:HD22	0.403
1	B:188:MET:HE2	B:214:ILE:O	0.403
1	B:257:ASP:HB2	B:300:GLU:HB3	0.403
1	B:319:GLN:HG3	B:330:ILE:CB	0.403
1	C:9:LEU:CD1	C:13:ASP:HB3	0.403
1	C:48:PHE:CD2	C:48:PHE:O	0.403
1	B:319:GLN:CG	B:320:LYS:N	0.403
1	C:23:LYS:N	C:24:GLY:C	0.403
1	B:256:PRO:N	D:28:PHE:H	0.403
1	B:297:TYR:CG	B:297:TYR:O	0.403
1	A:56:VAL:HG11	A:90:GLY:HA2	0.402
1	A:213:THR:C	D:45:VAL:CG1	0.402
1	A:312:ALA:C	A:314:GLU:N	0.402
1	A:297:TYR:CB	A:313:ASP:C	0.402
1	A:322:PRO:HD3	A:328:TRP:O	0.402
1	B:29:THR:CG2	B:166:ILE:CD1	0.402
1	B:79:GLU:CB	D:14:ALA:CB	0.402

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	B:188:MET:HE1	B:191:TRP:NE1	0.402
1	B:200:LEU:N	B:200:LEU:HD12	0.402
1	B:222:ARG:CZ	B:270:ILE:CD1	0.402
1	A:314:GLU:CD	C:20:THR:CG2	0.402
1	C:46:GLN:CG	C:47:GLY:N	0.402
1	A:222:ARG:H	A:352:TYR:CB	0.402
1	B:220:CYS:SG	B:352:TYR:N	0.402
1	A:37:LEU:C	A:37:LEU:HD23	0.401
1	A:58:THR:O	A:78:LYS:CG	0.401
1	B:12:LEU:C	B:12:LEU:CD2	0.401
1	B:60:LEU:CD2	B:63:VAL:HG21	0.401
1	B:64:THR:HG22	B:65:PRO:CD	0.401
1	B:104:VAL:HG21	B:125:MET:CE	0.401
1	B:98:PHE:CE1	B:128:ILE:HD11	0.401
1	B:307:MET:SD	B:312:ALA:HB3	0.401
1	B:375:LEU:HD23	B:379:VAL:CG2	0.401
1	A:297:TYR:CD2	C:26:PRO:HG3	0.401
1	A:367:ILE:O	A:367:ILE:HG12	0.401
1	A:146:LEU:C	A:146:LEU:CD1	0.400
1	A:157:GLU:HG2	A:161:LYS:HE2	0.400
1	A:304:ILE:H	A:304:ILE:HD12	0.400
1	A:299:ALA:O	A:345:ILE:HG21	0.400
1	B:50:ARG:HG2	B:55:GLU:CD	0.400

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:374:PHE:CE1	B:193:ALA:HB2	0.400
1	A:128:ILE:CG2	A:129:PRO:N	0.400
1	A:5:CYS:CB	B:5:CYS:SG	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	892	766	87	39

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	812	683	74	55

Detailed list of outliers are tabulated below.

Model ID	Chain	Residue ID	Residue type
1	A	27	HIS
1	A	37	LEU
1	A	41	ARG
1	A	70	GLU
1	A	78	LYS
1	A	84	LEU
1	A	134	LYS
1	A	162	TYR
1	A	170	LEU
1	A	174	HIS

Model ID	Chain	Residue ID	Residue type
1	A	181	ILE
1	A	184	ARG
1	A	185	ARG
1	A	217	TYR
1	A	218	LEU
1	A	240	TRP
1	A	254	LYS
1	A	280	ILE
1	A	294	LEU
1	A	304	ILE
1	A	319	GLN
1	A	320	LYS
1	A	336	LEU
1	A	340	ASN
1	A	341	LYS
1	A	342	LYS
1	A	368	ILE
1	A	380	LEU
1	A	393	ASN
1	B	22	MET
1	B	25	ILE
1	B	27	HIS
1	B	78	LYS

Model ID	Chain	Residue ID	Residue type
1	B	86	ILE
1	B	105	LYS
1	B	182	GLU
1	B	206	GLN
1	B	294	LEU
1	B	301	ASN
1	B	304	ILE
1	B	308	MET
1	B	331	LYS
1	B	332	ASN
1	B	336	LEU
1	B	341	LYS
1	B	342	LYS
1	B	345	ILE
1	B	367	ILE
1	B	393	ASN
1	B	394	ARG
1	C	23	LYS
1	C	25	PRO
1	C	28	PHE
1	C	34	ARG
1	C	37	LYS

Fit of model to data used for modeling

Crosslinking-MS

Validation for this section is under development.

Fit of model to data used for validation

Validation for this section is under development.

Acknowledgements

Development of integrative model validation metrics, implementation of a model validation pipeline, and creation of a validation report for integrative structures, are funded by NSF ABI awards (DBI-1756248, DBI-2112966, DBI-2112967, DBI-2112968, and DBI-1756250). The PDB-Dev team and members of Sali labcontributed model validation metrics and software packages.

Implementation of validation methods for SAS data and SAS-based models are funded byRCSB PDB (grant number DBI-1832184). Dr. Stephen Burley, Dr. John Westbrook, and Dr. Jasmine Young from RCSB PDB, Dr. Jill Trewhella, Dr. Dina Schneidman, and members of the SASBDB repository are acknowledged for their advice and support in implementing SAS validation methods.

Members of the wwPDB Integrative/Hybrid Methods Task Force provided recommendations and community support for the project.