Integrative Structure Validation Report

July 22, 2024 - 04:27 PM PDT

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

Python-IHM Version 1.3
MolProbity Version 4.5.2
ATSAS Version 3.2.1 (r14885)
Integrative Modeling Validation Version 1.2

PDB ID	9A1G
PDB-Dev ID	PDBDEV_00000088
Structure Title	Structures of multiple states of the hGBP1 resolved by FRET, SAXS, and EPR
Structure Authors	Thomas-Otavio Peulen; Carola S. Hengstenberg; Ralf Biehl; Mykola Dimura; Charlotte Lorenz; Alessandro Valeri; Julian Folz; Christian A Hanke; Semra Ince; Tobias Voepel; Bela Farago; Holger Gohlke; Johann P. Klare; Andreas M. Stadler; Claus A. M. Seidel; Christian Herrmann

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

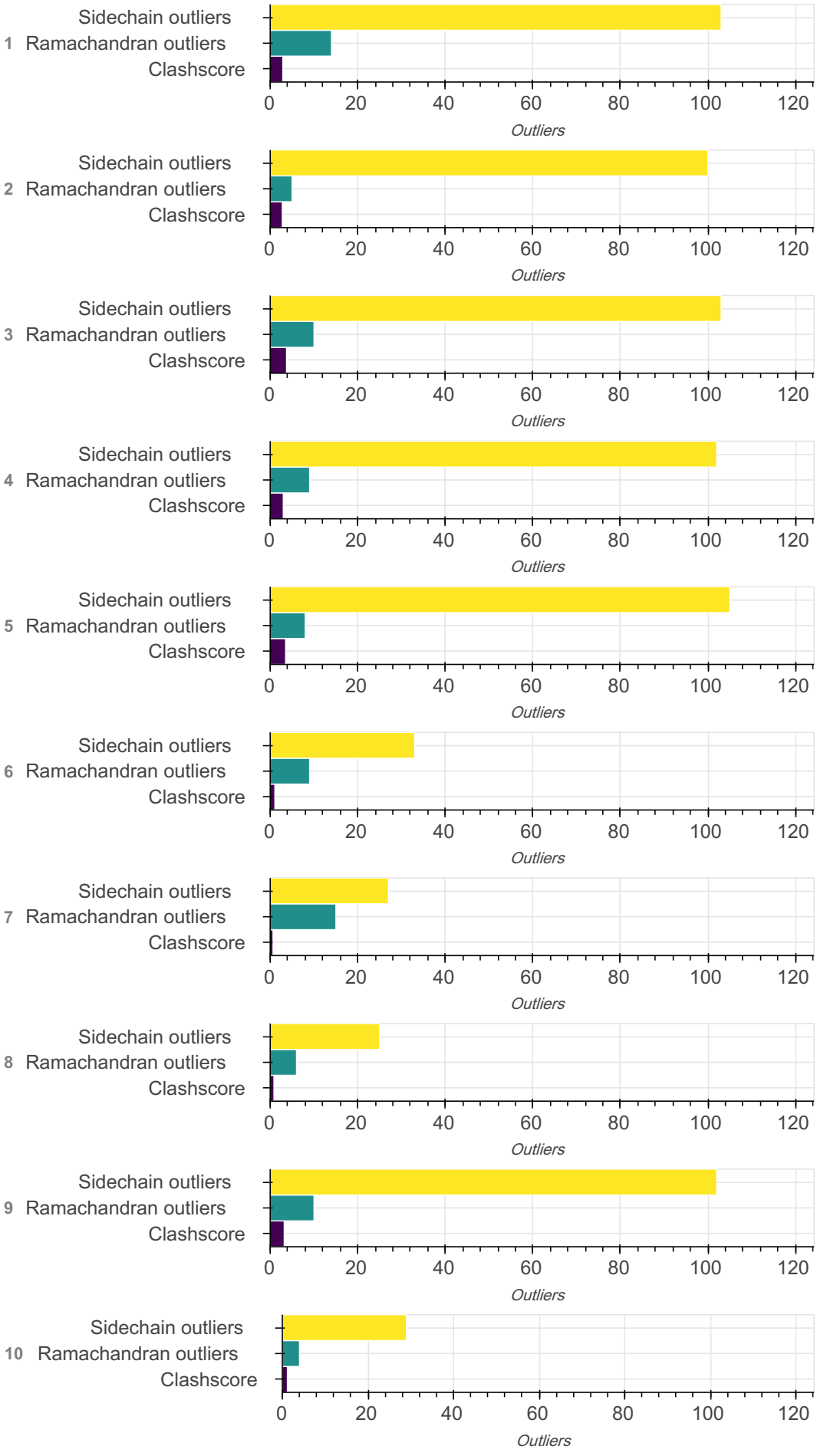
A user guide is available at https://pdb-dev.wwpdb.org/validation_help.html with specific help available everywhere you see the ? symbol.

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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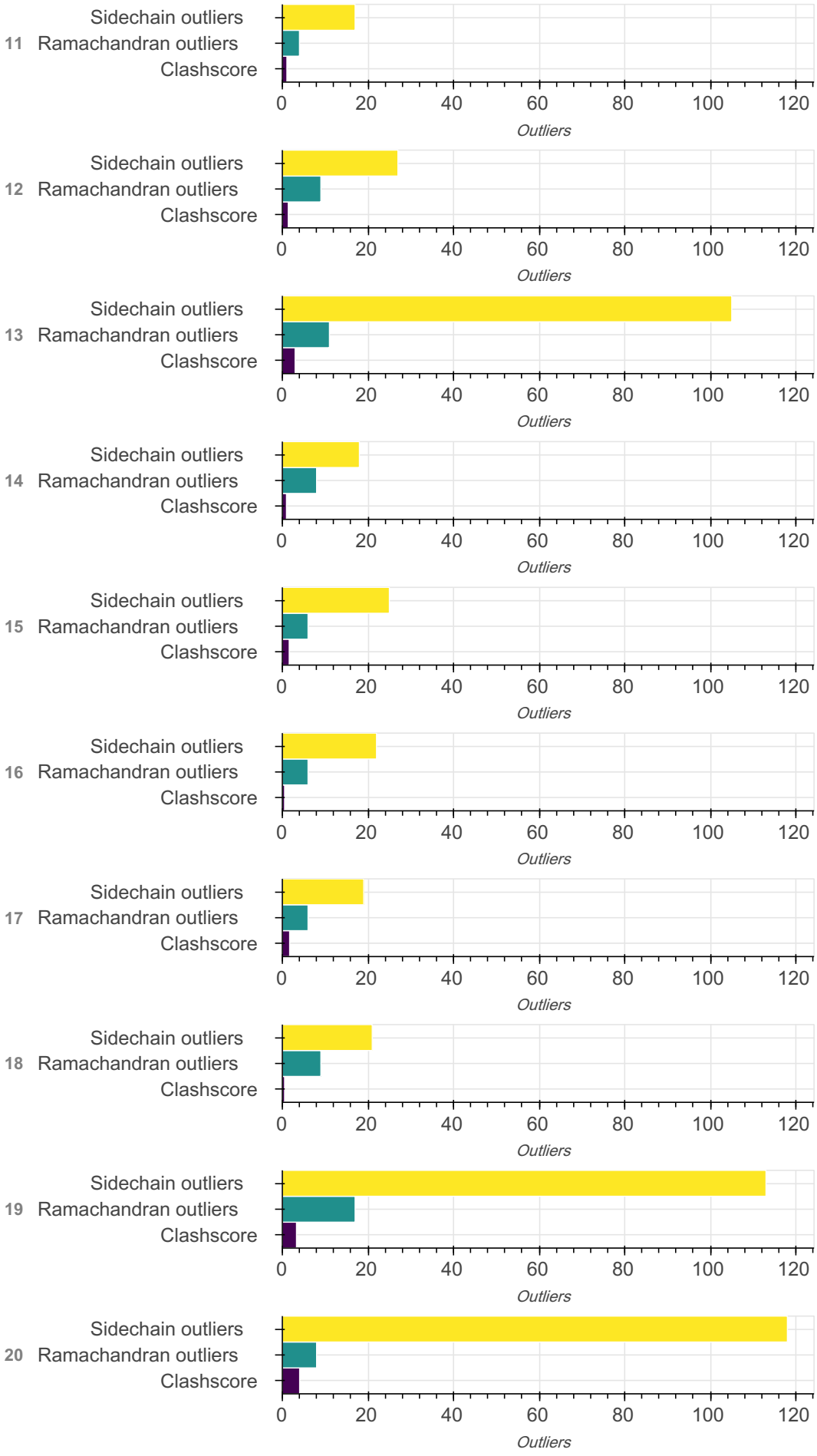
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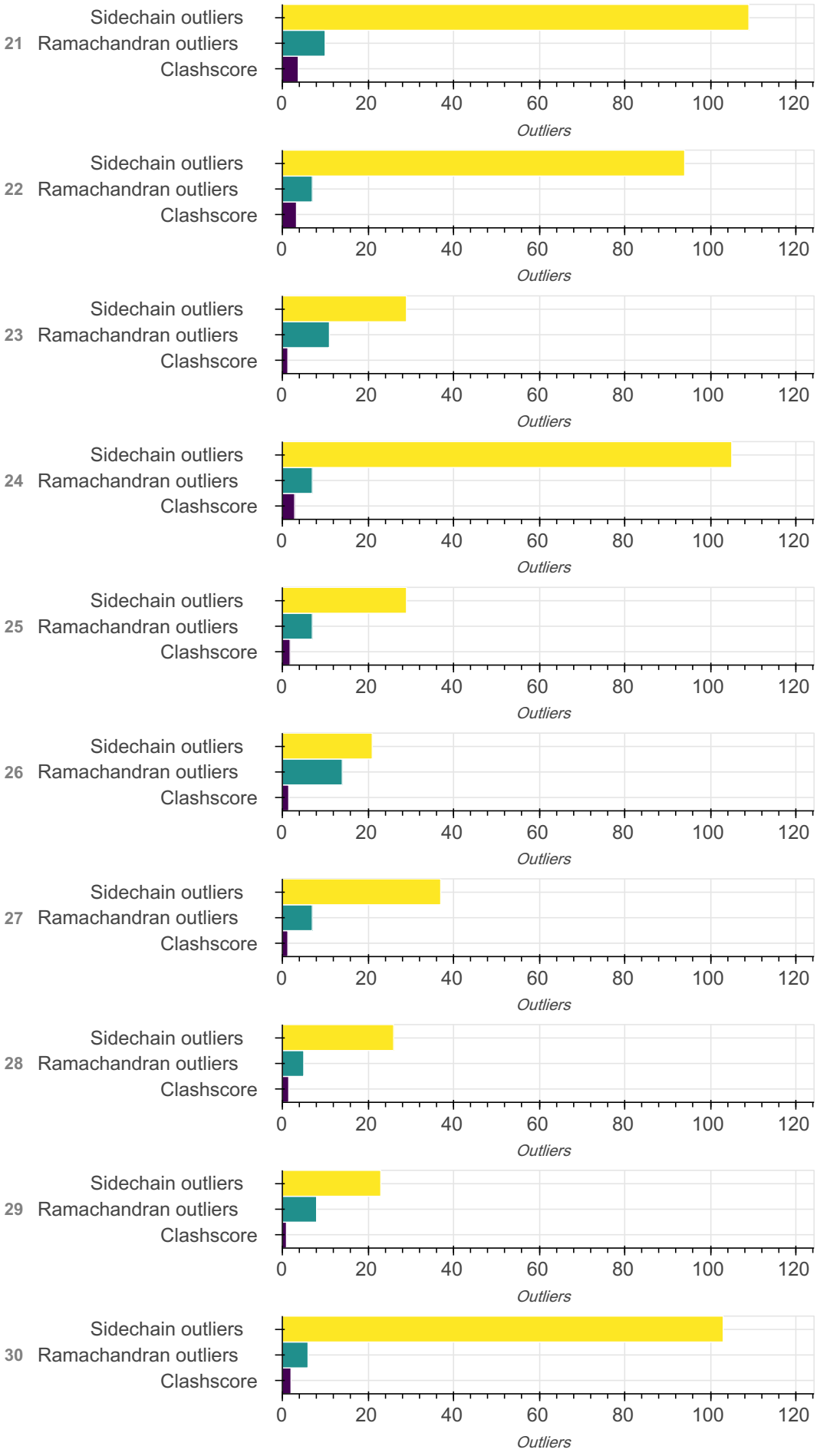
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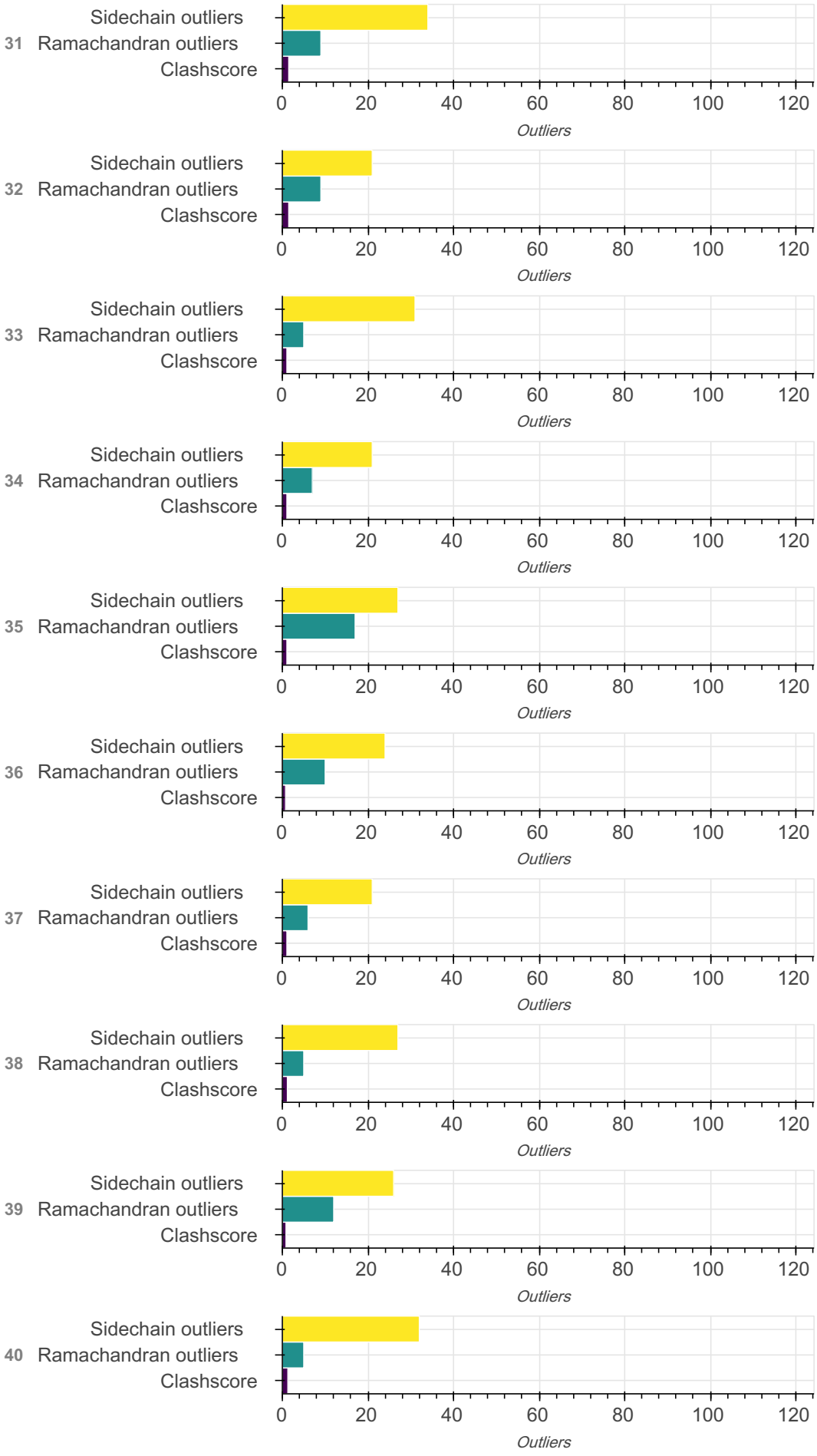
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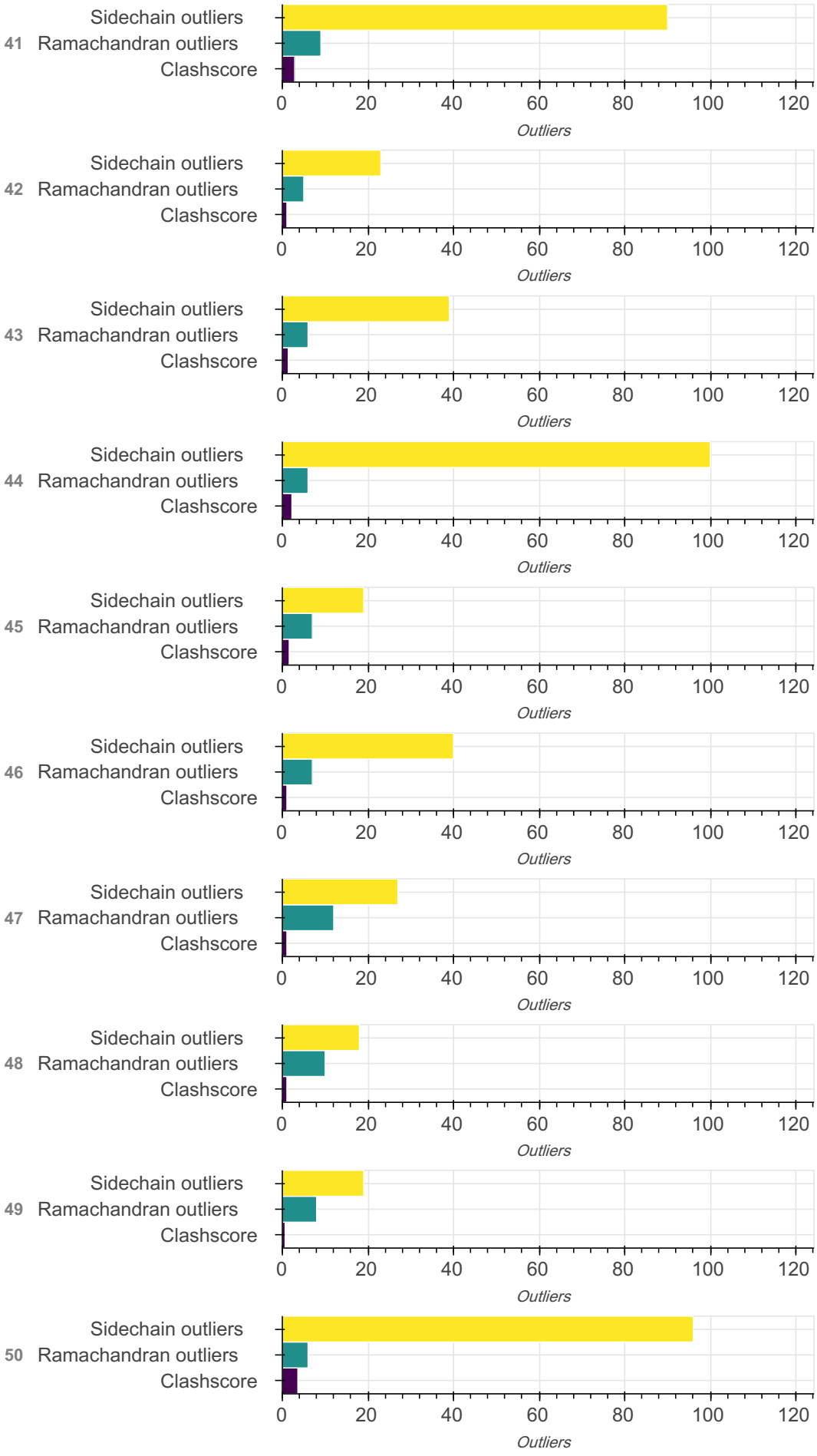
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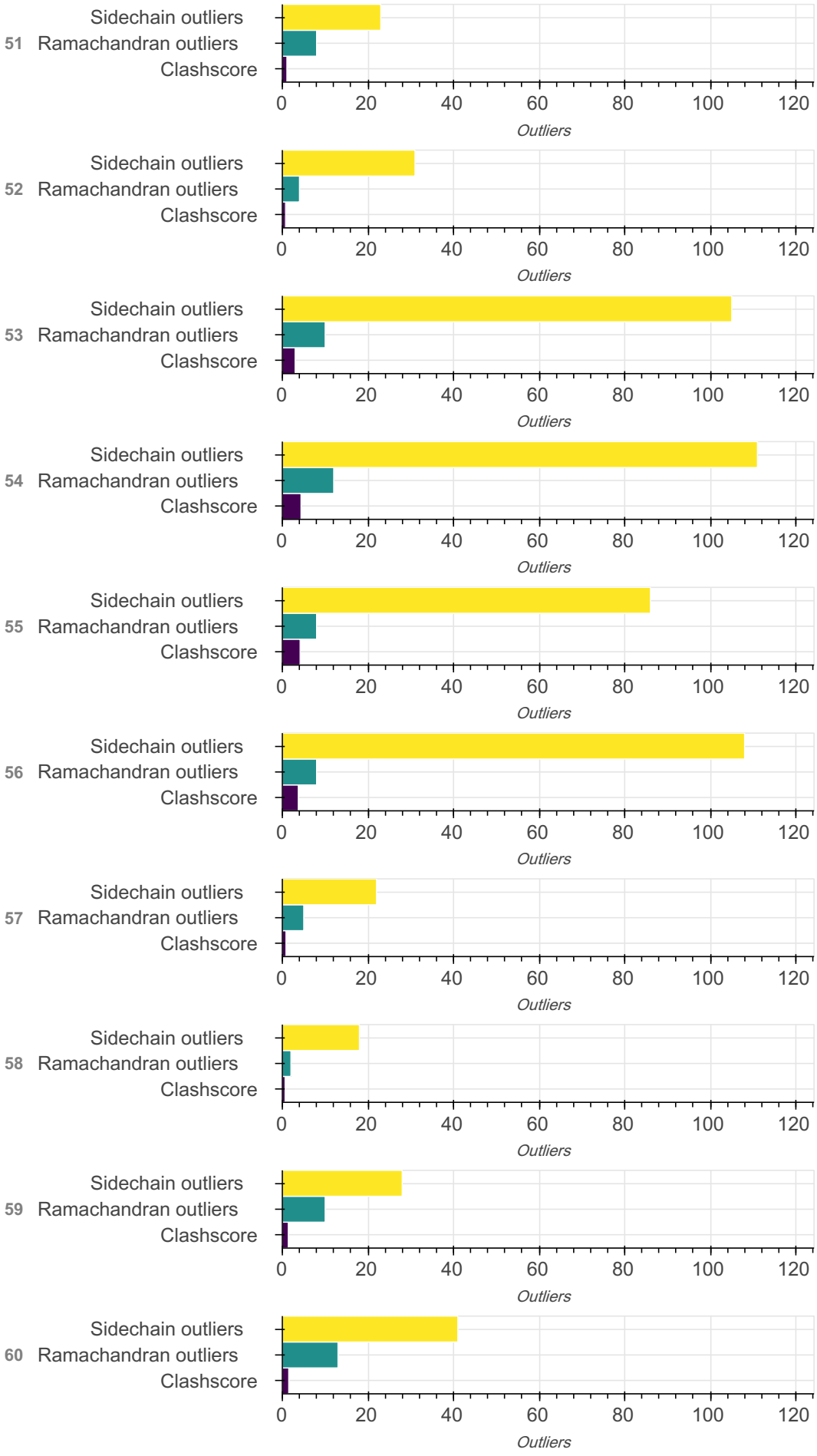
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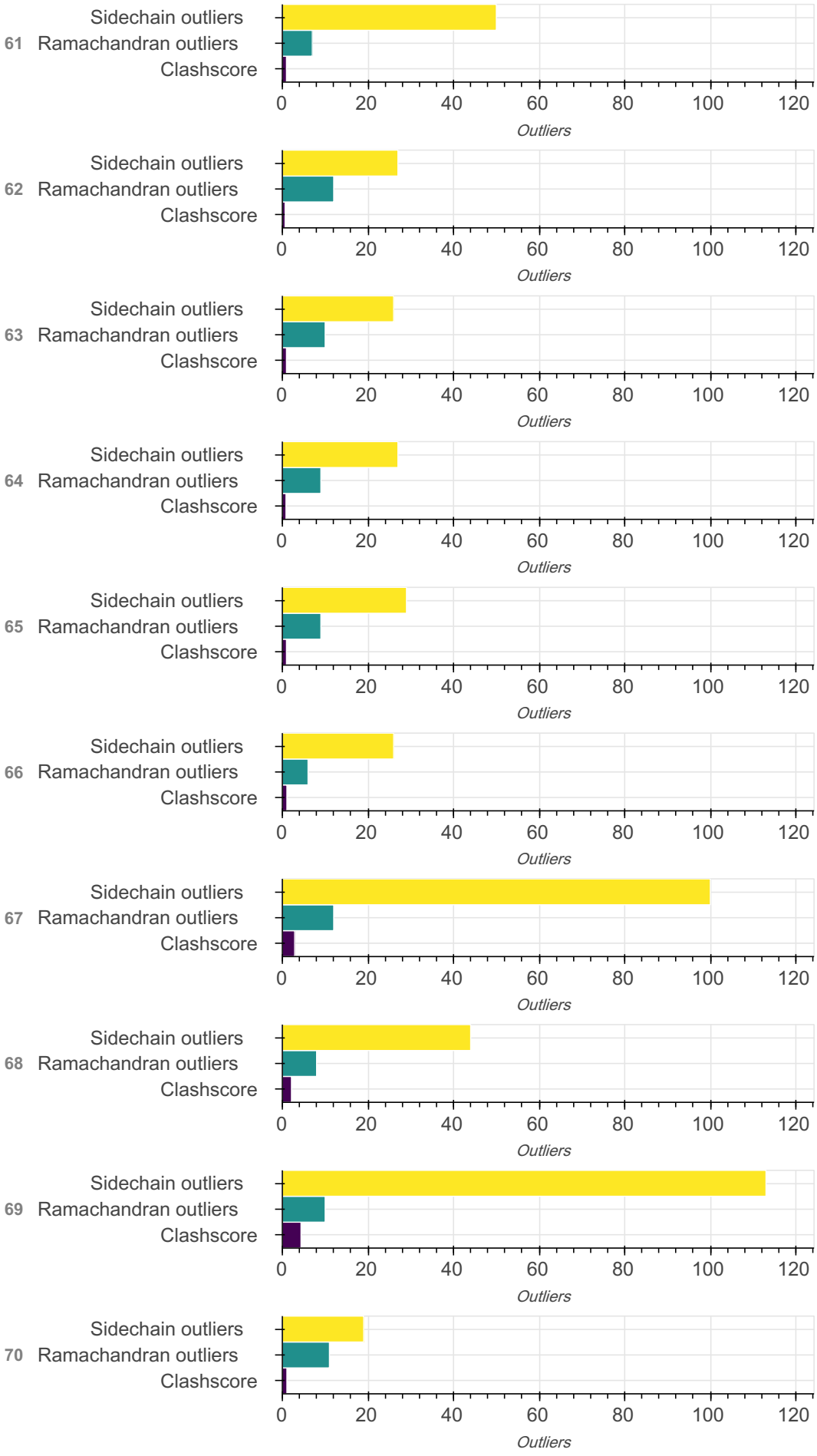
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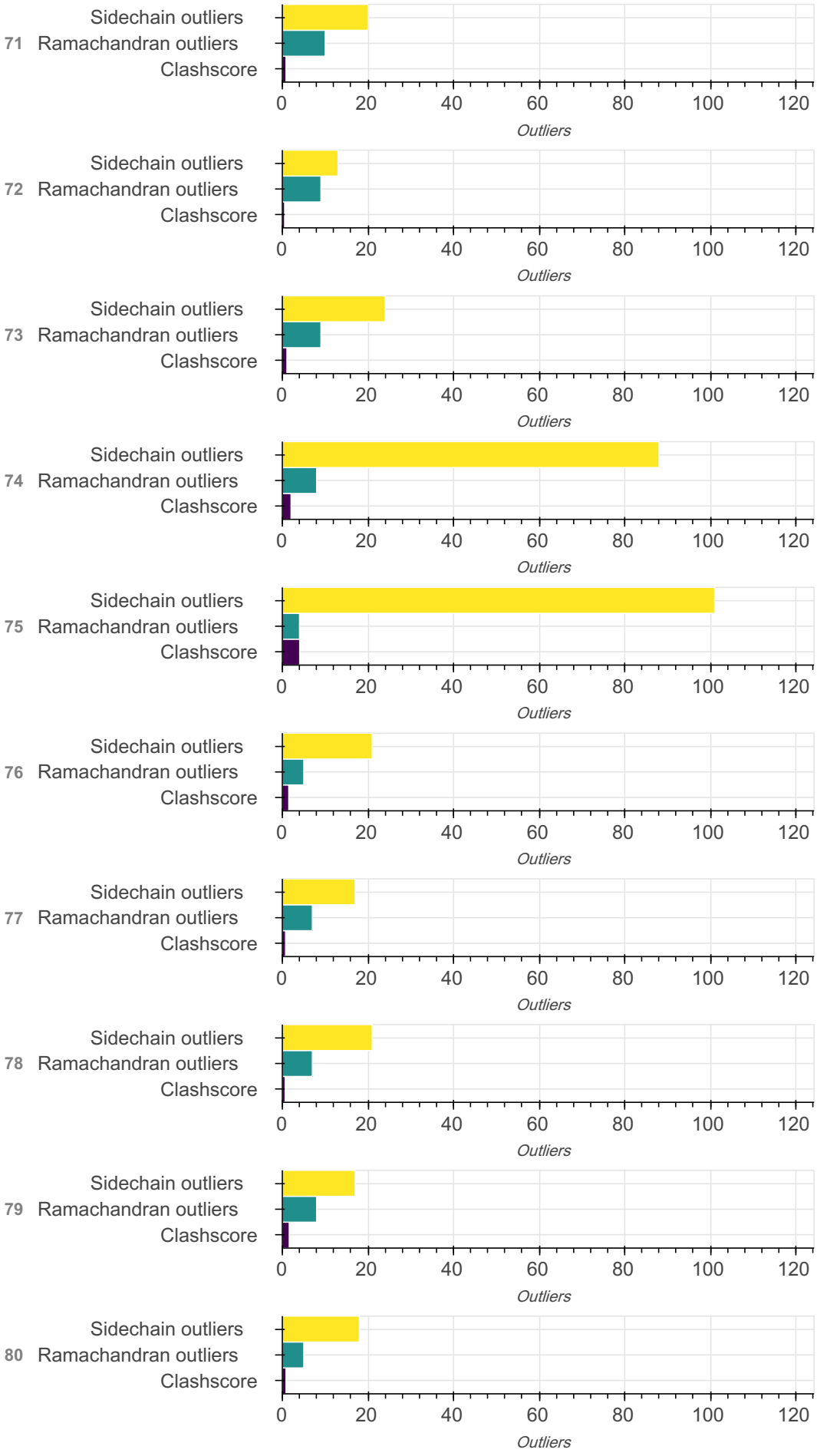
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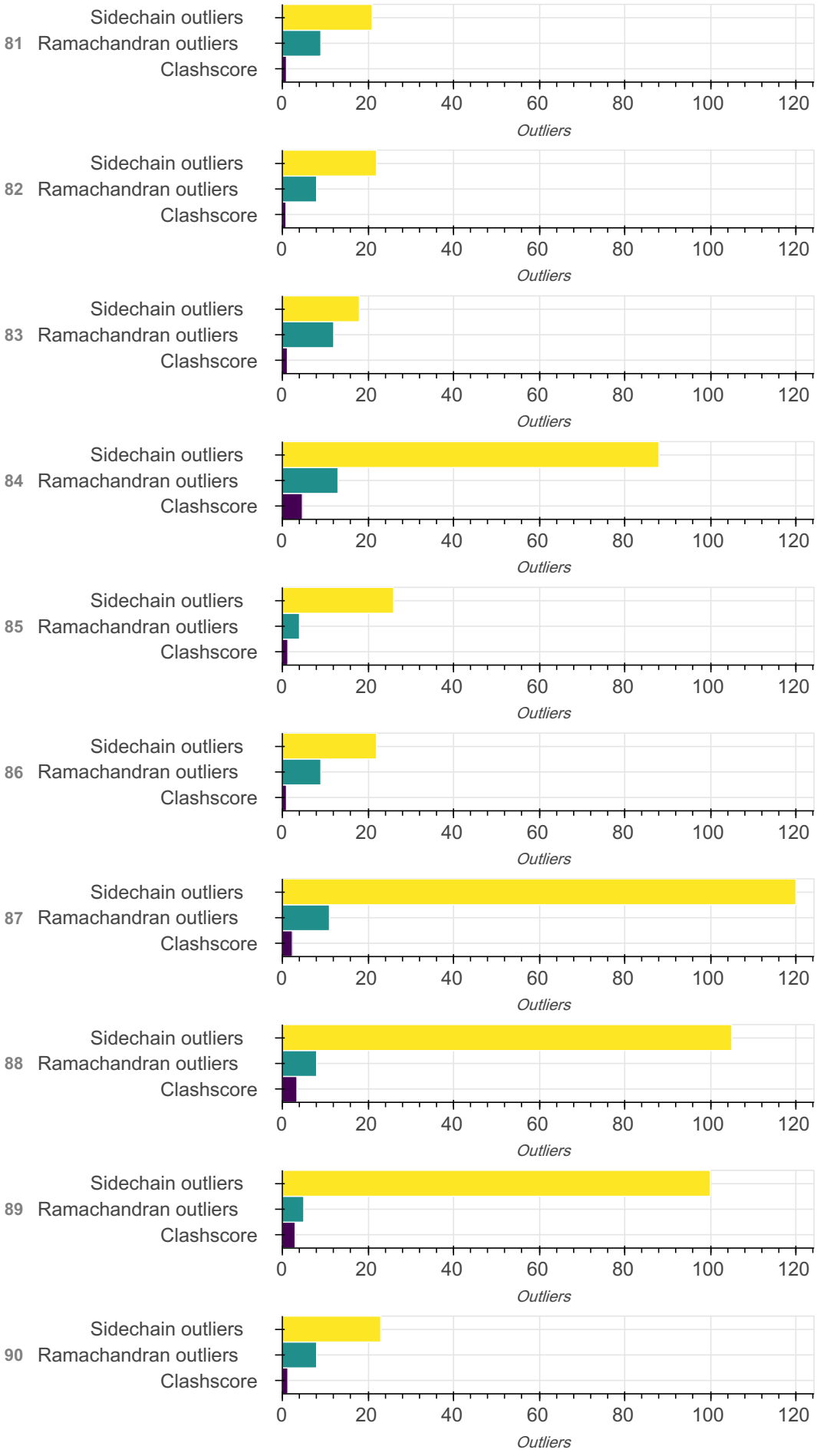
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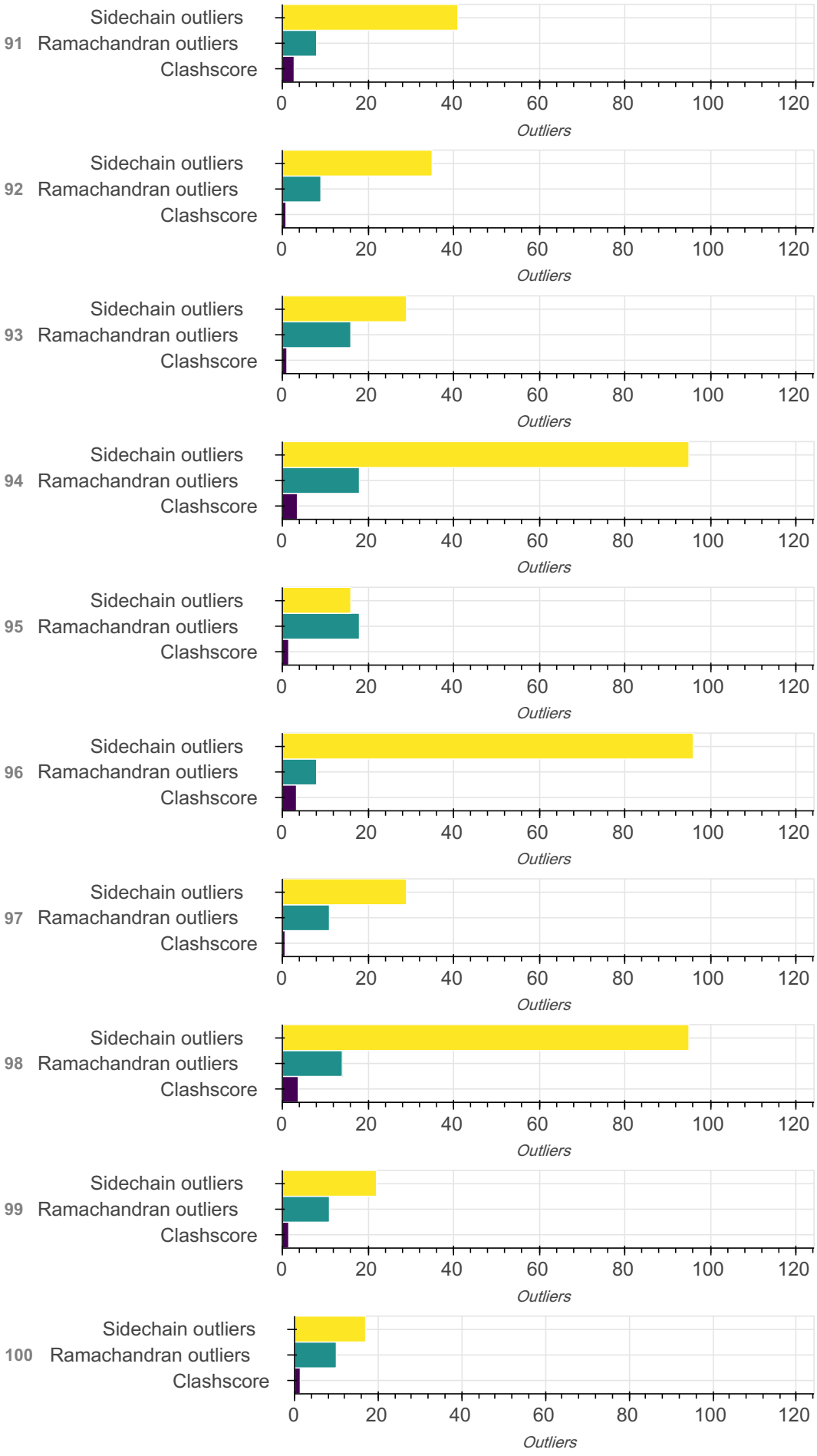
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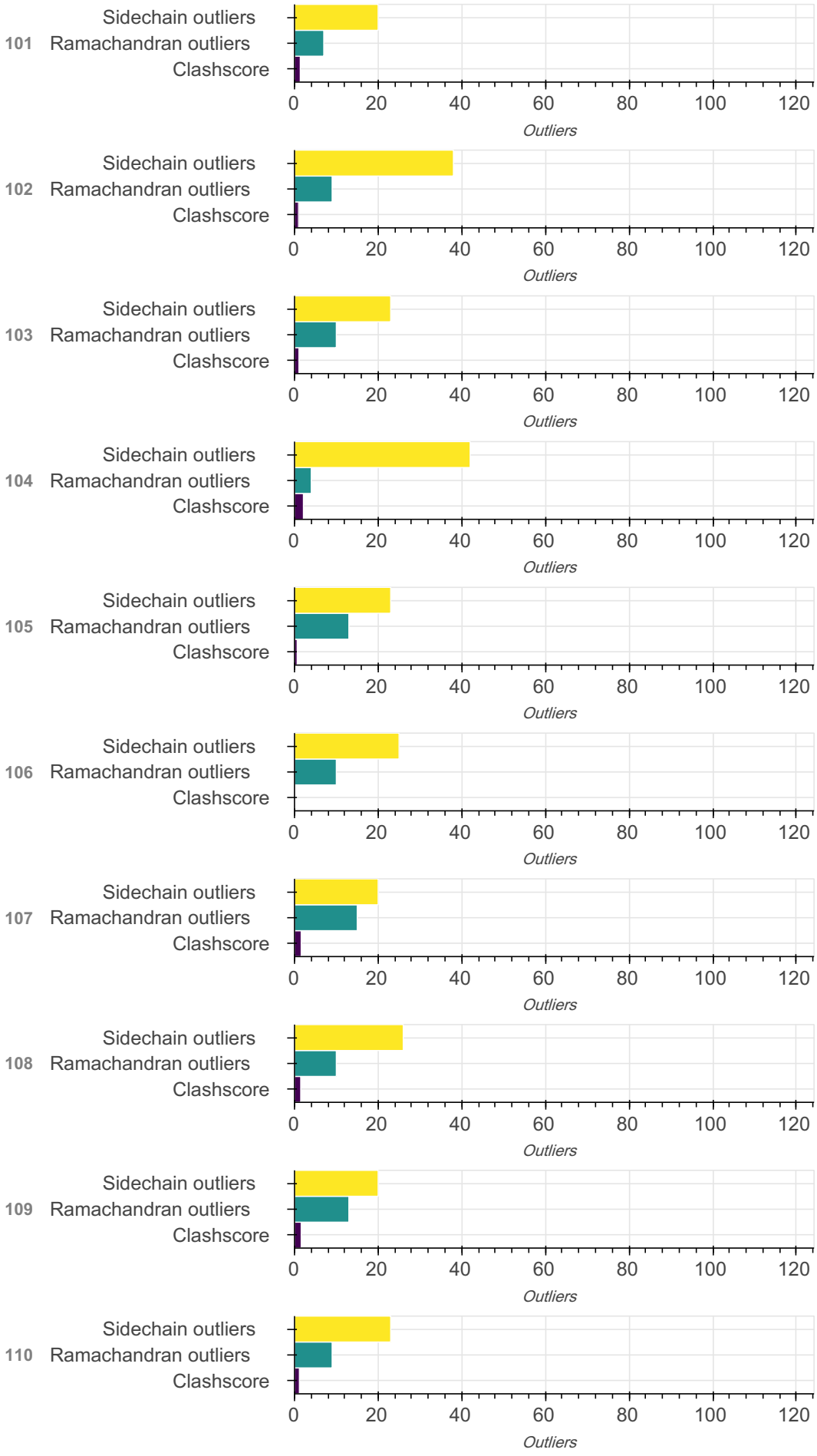
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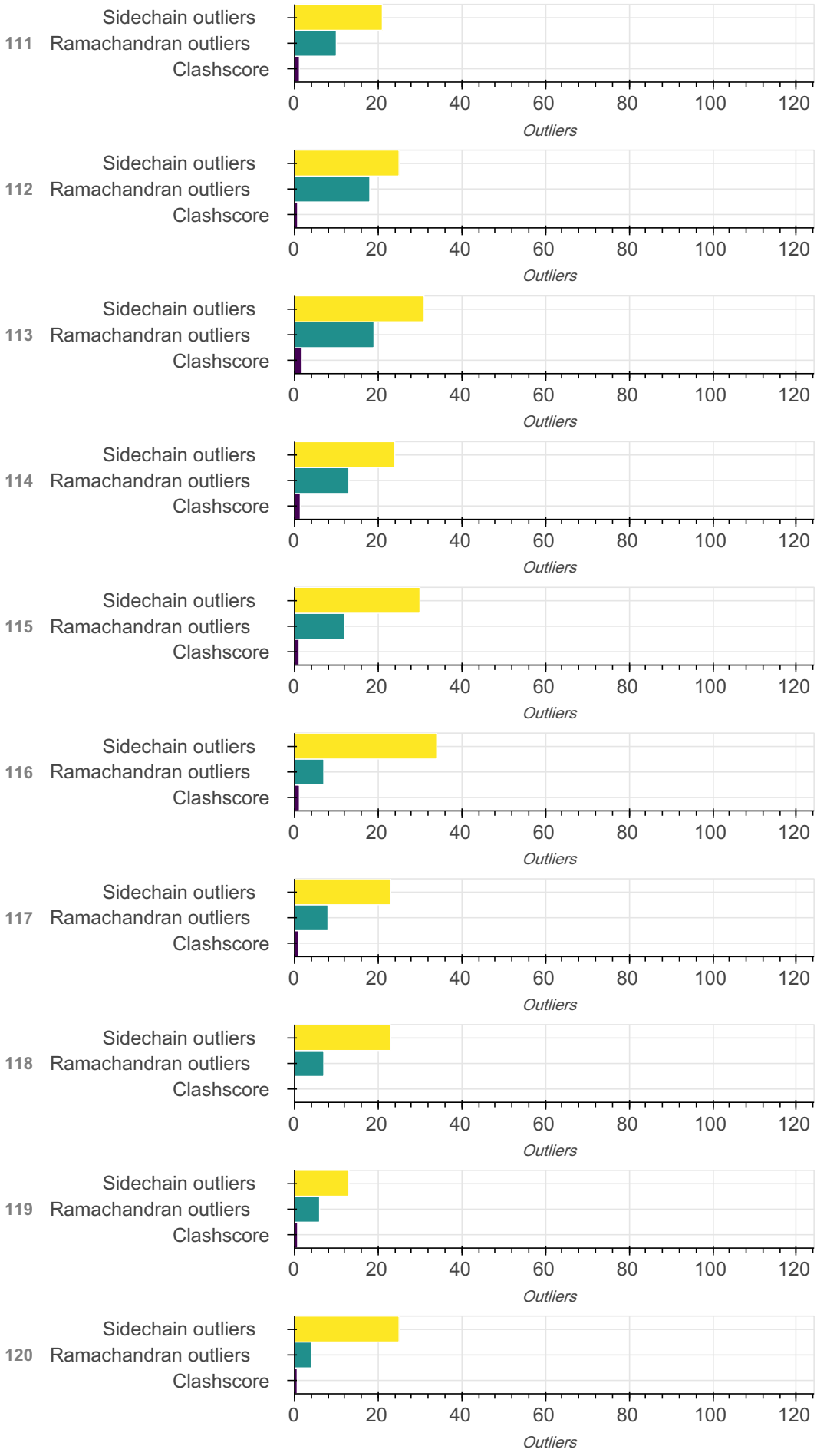
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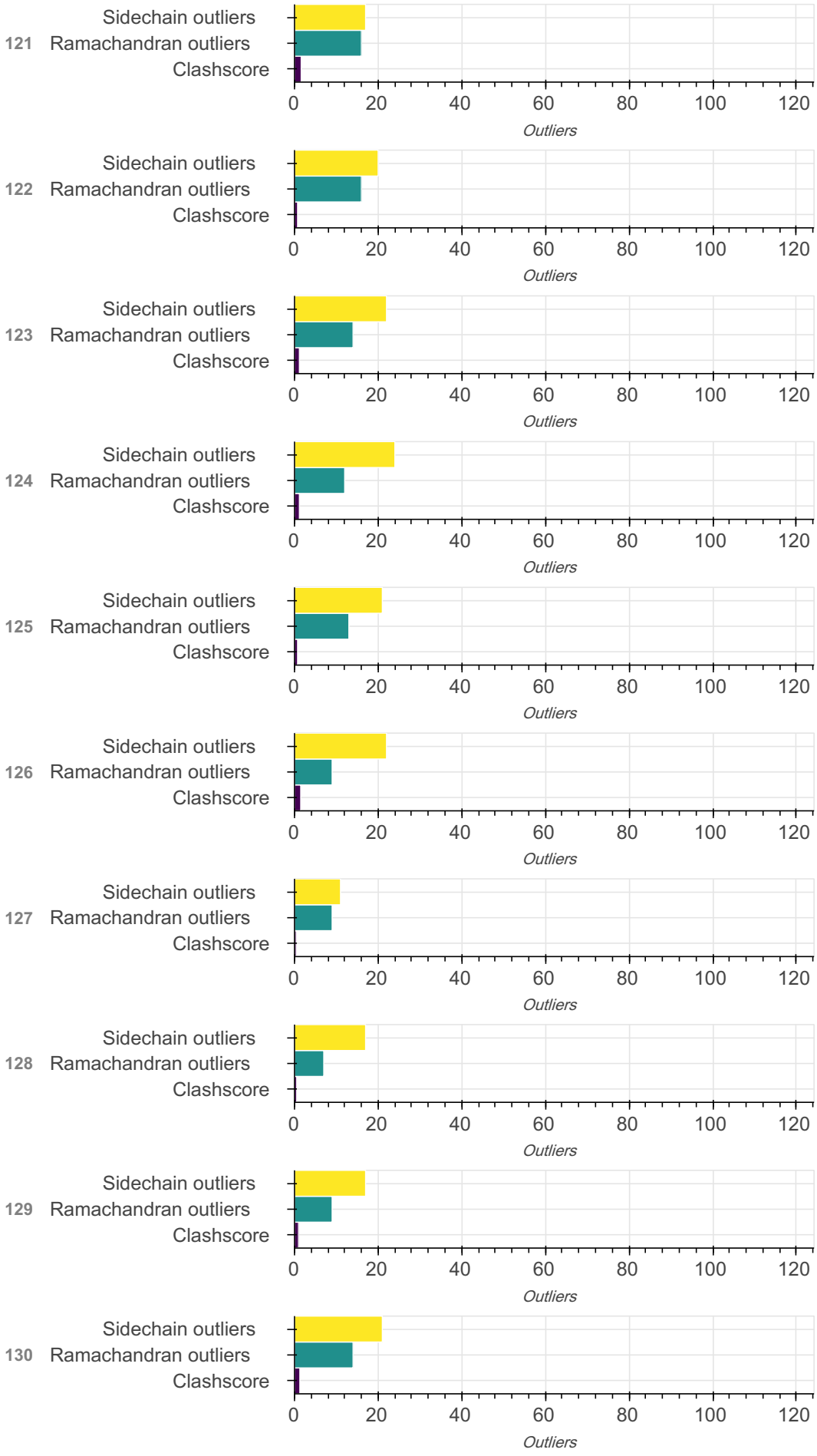
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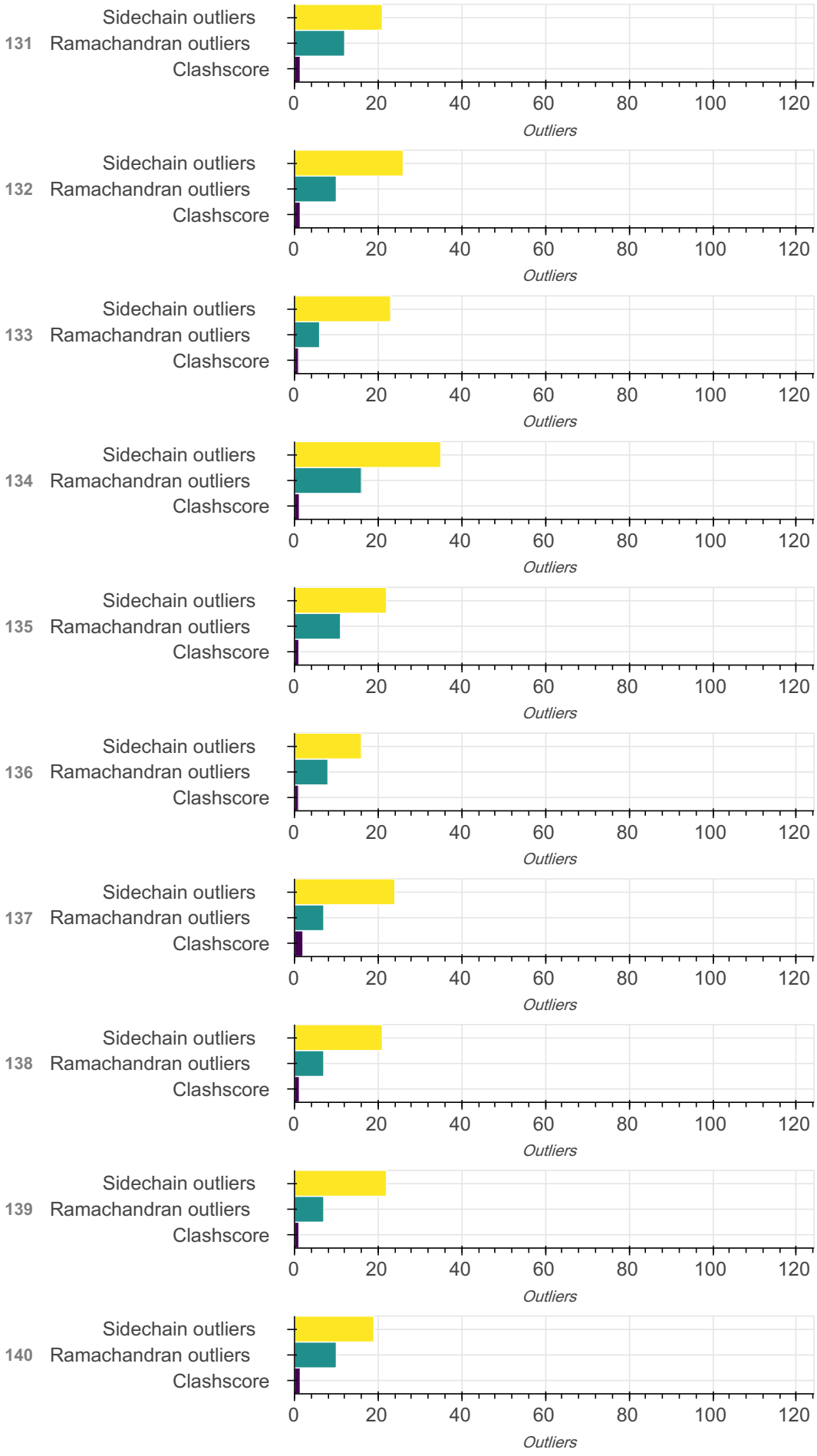
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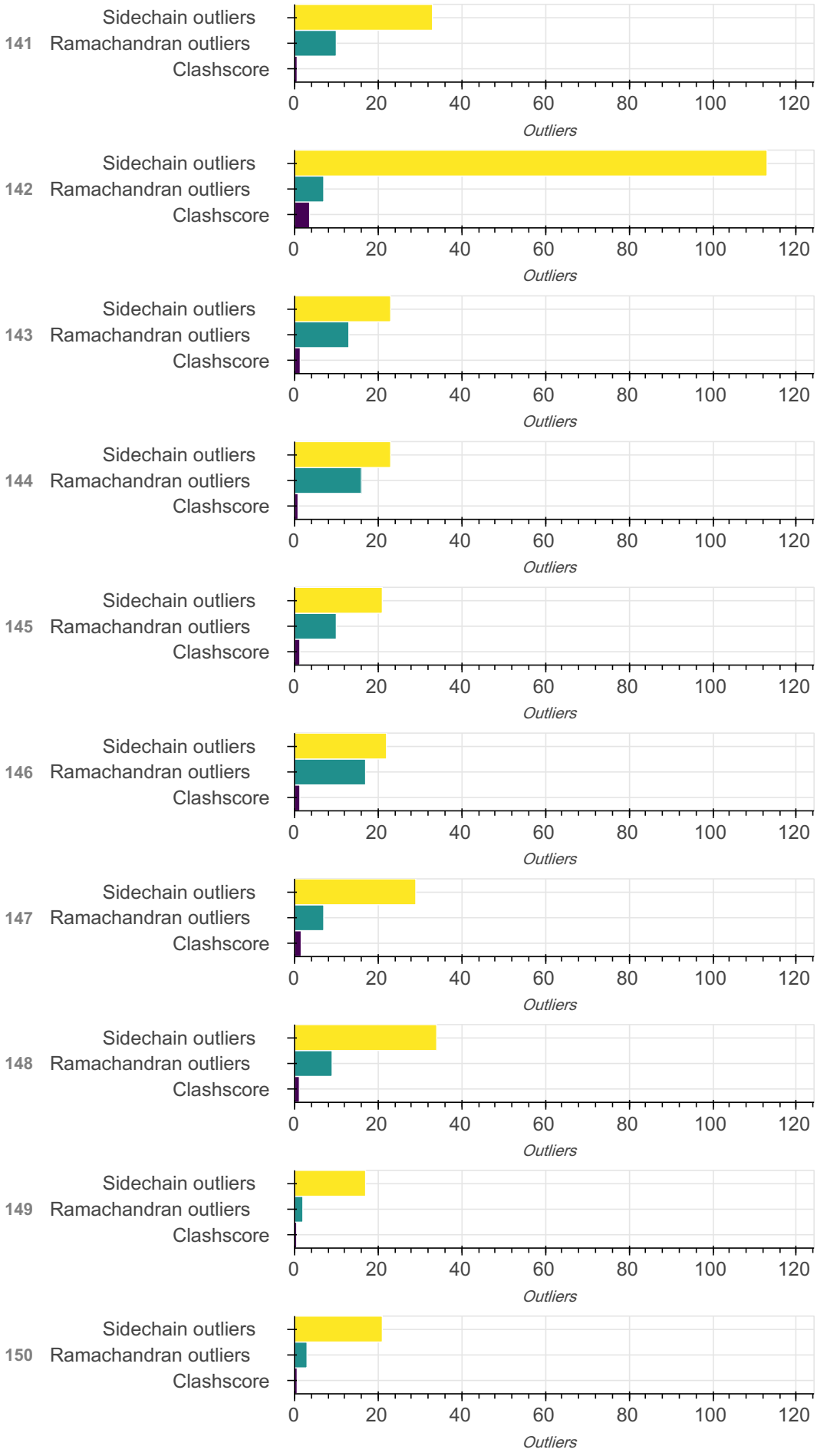
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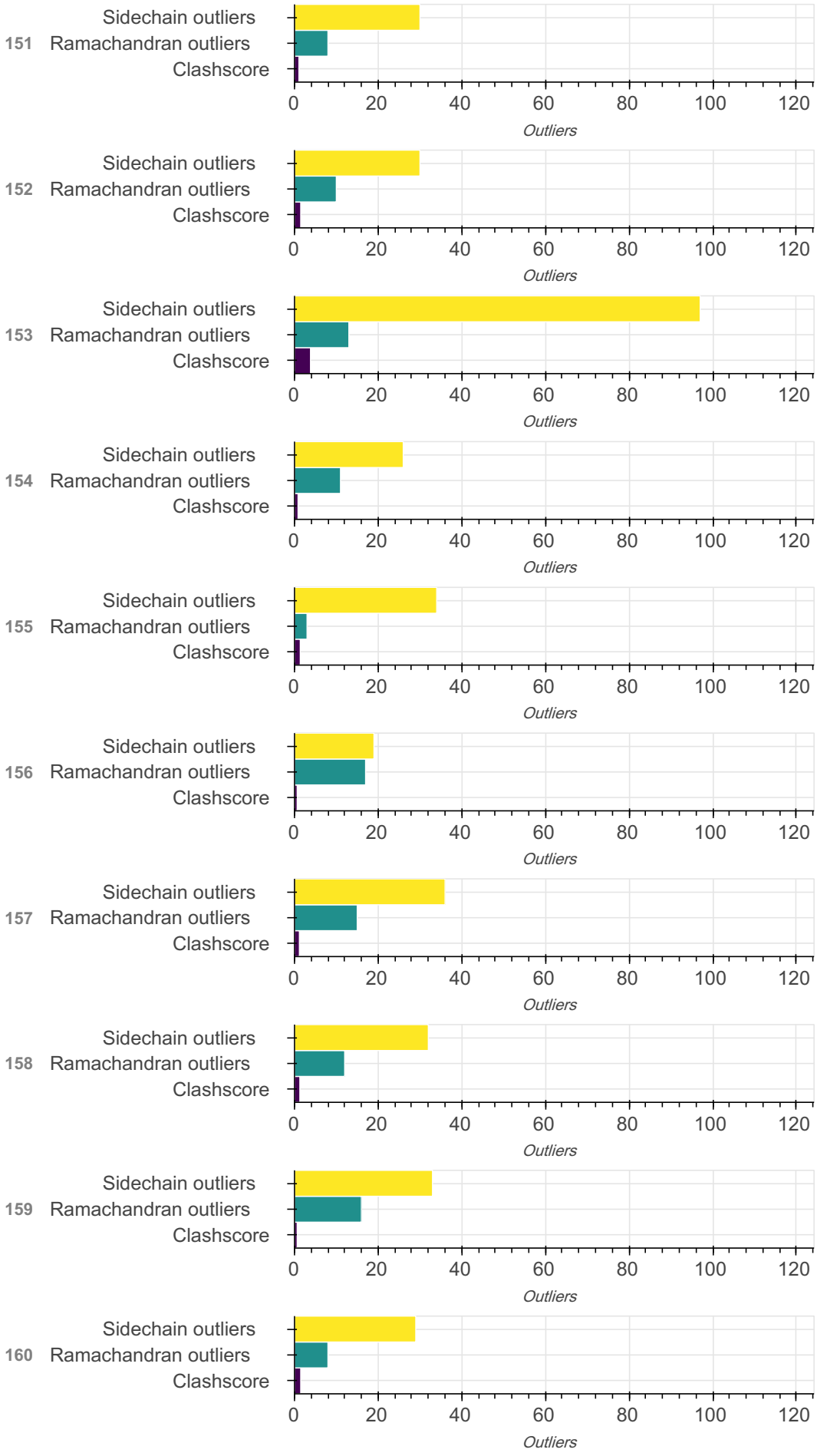
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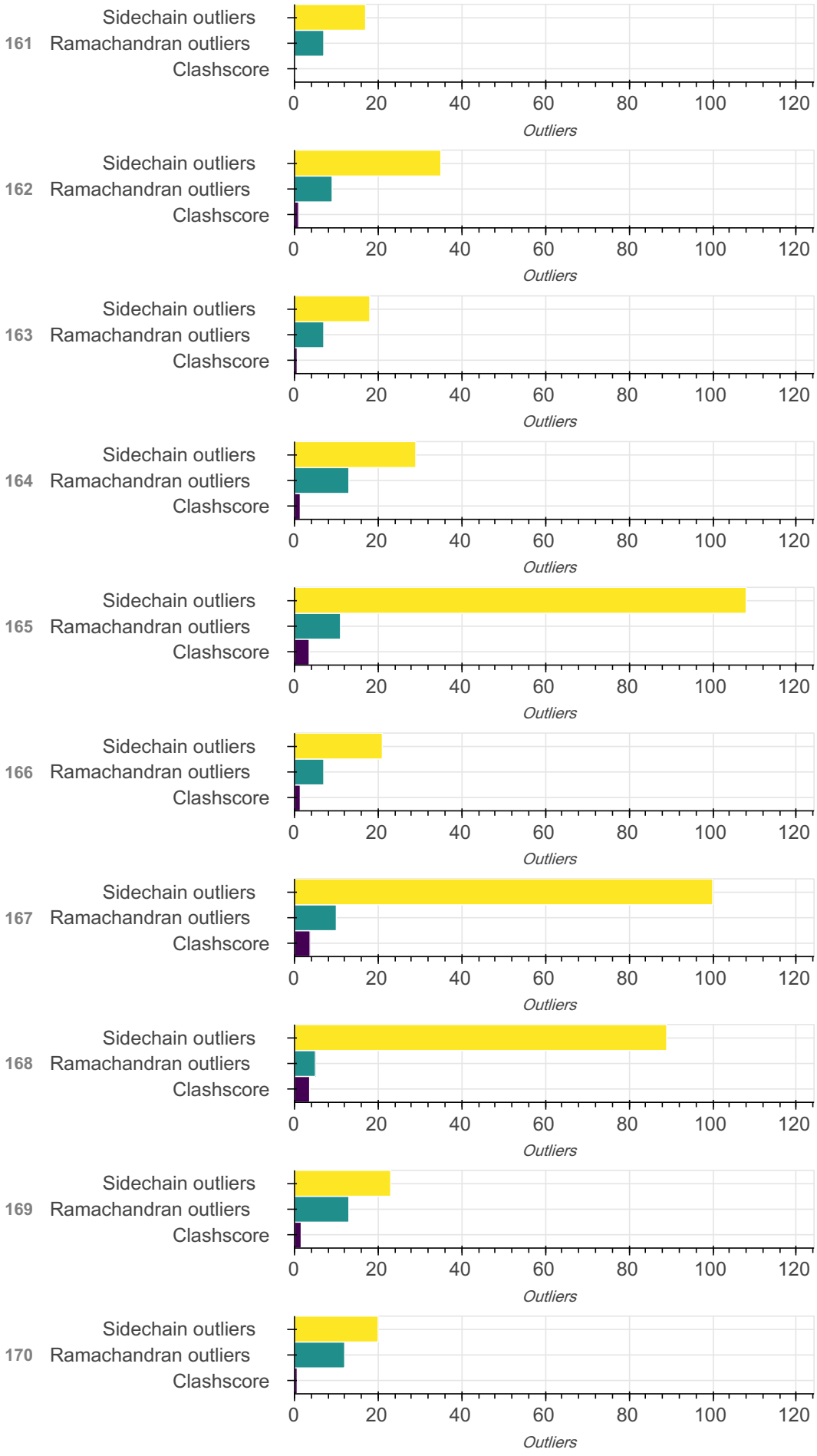
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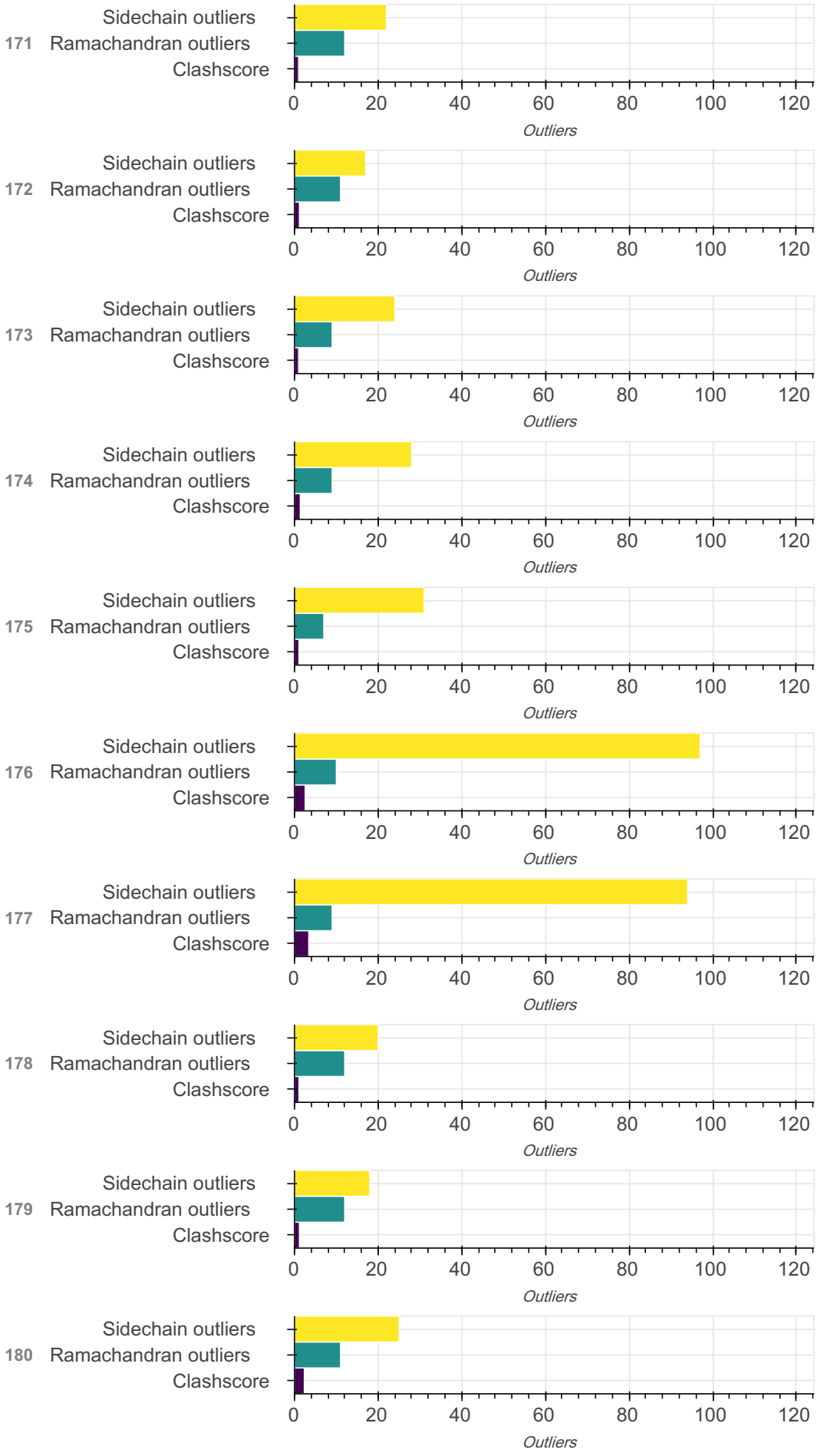
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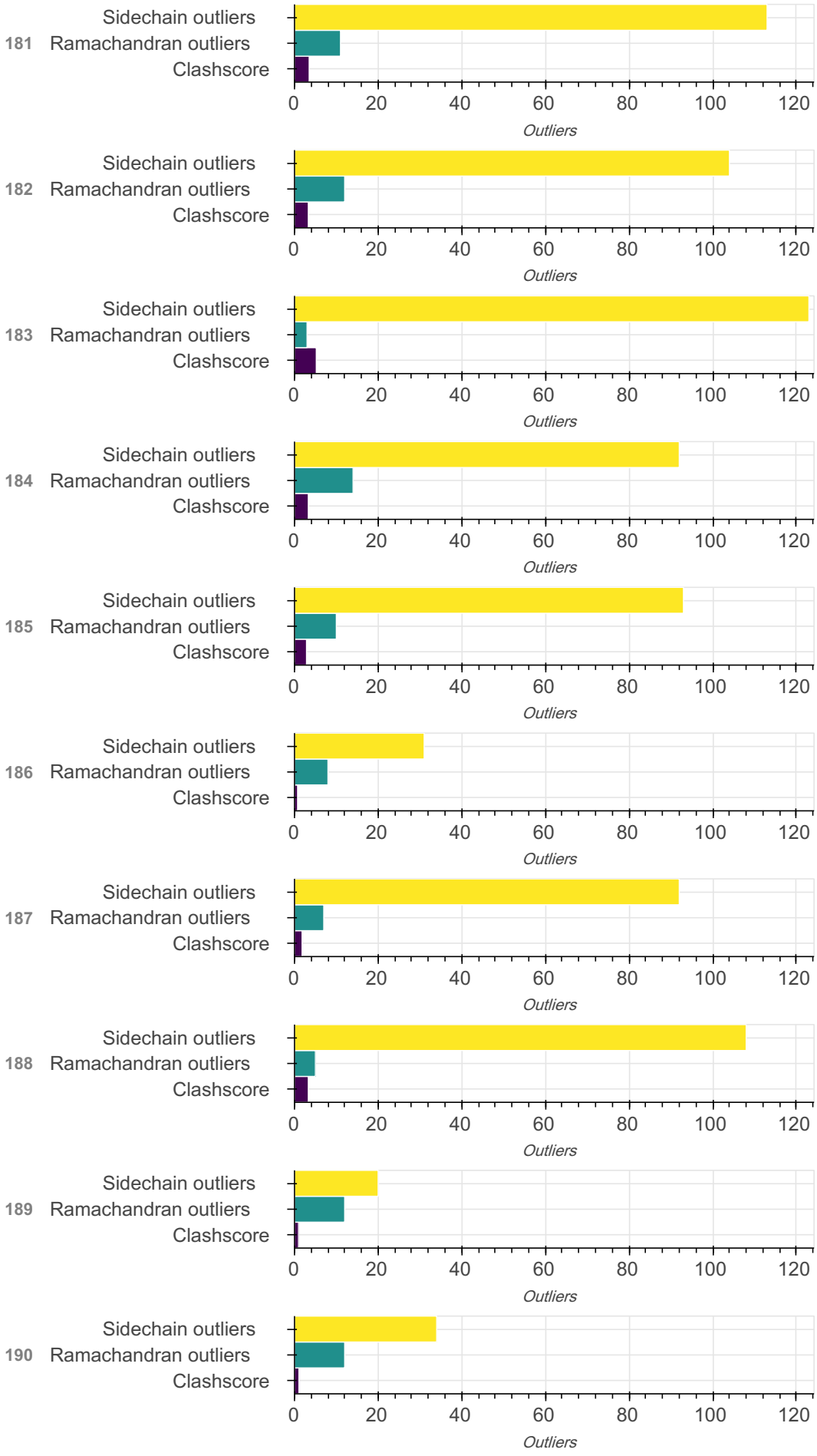
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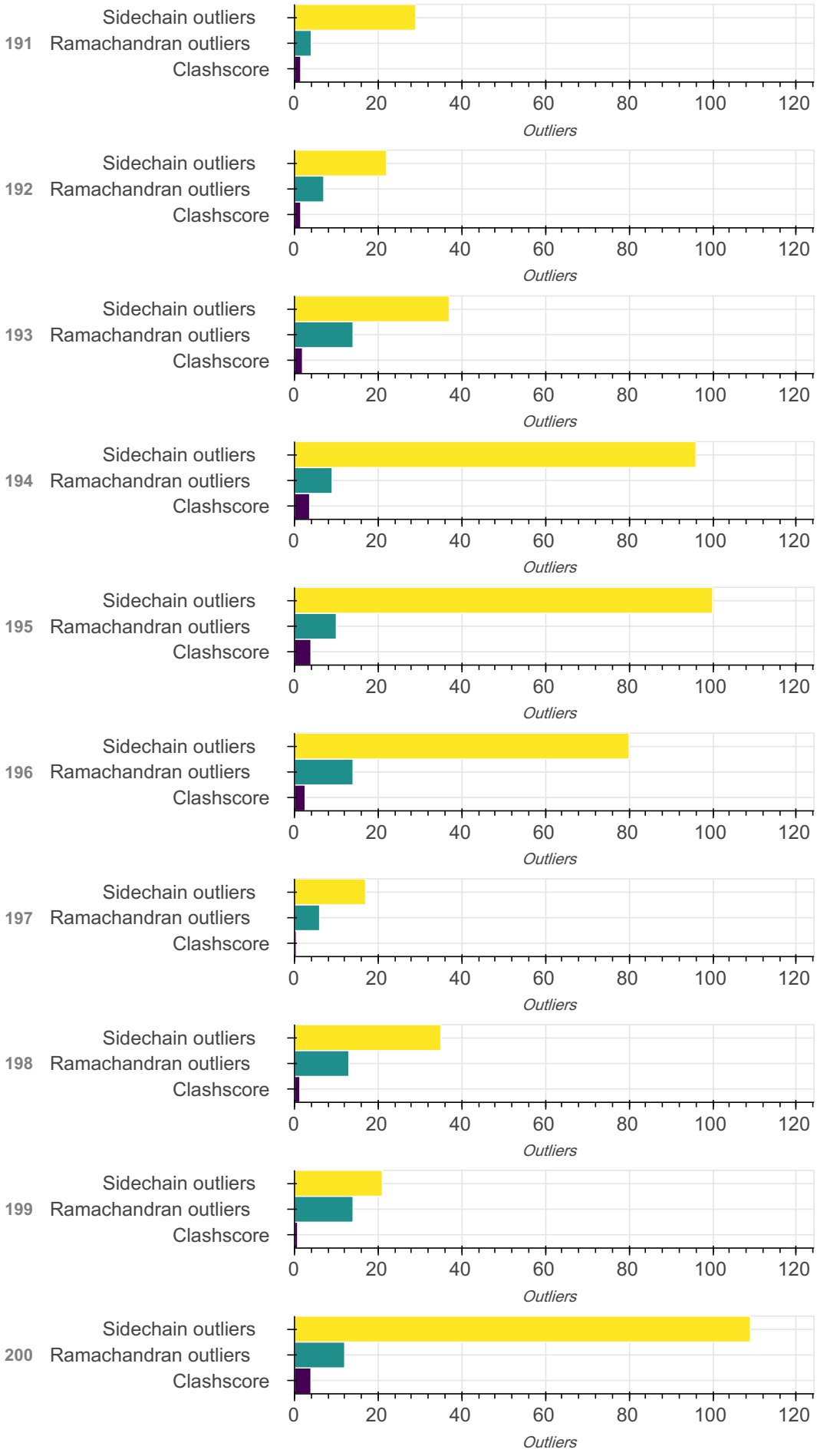
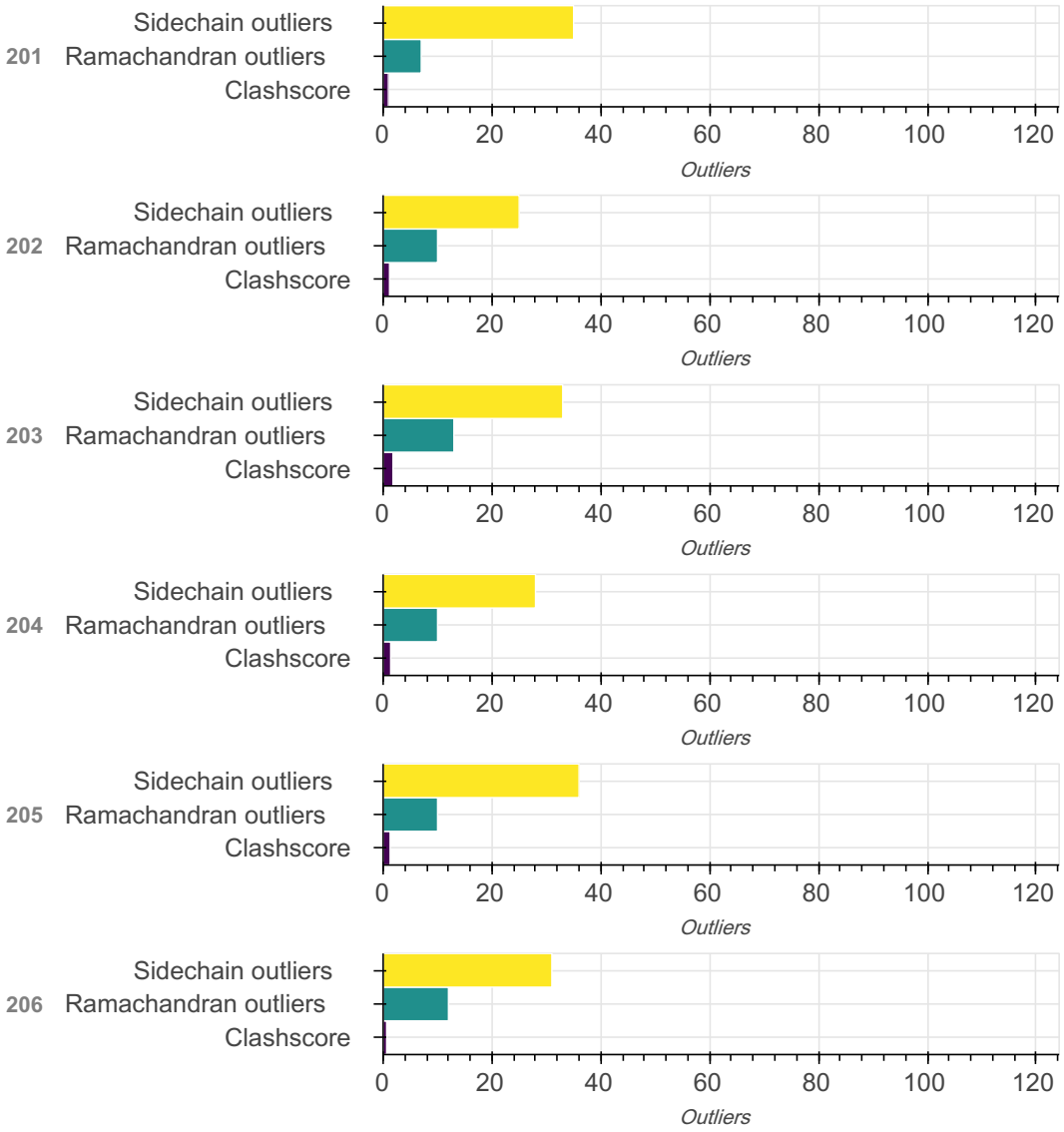
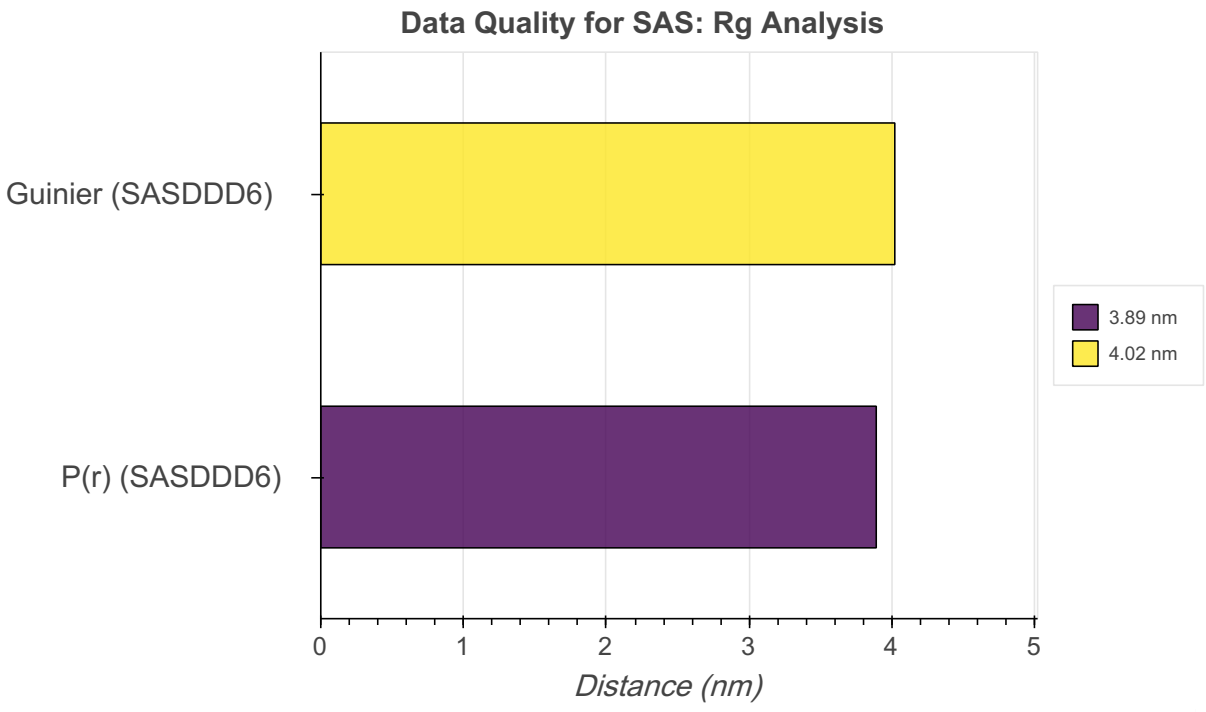
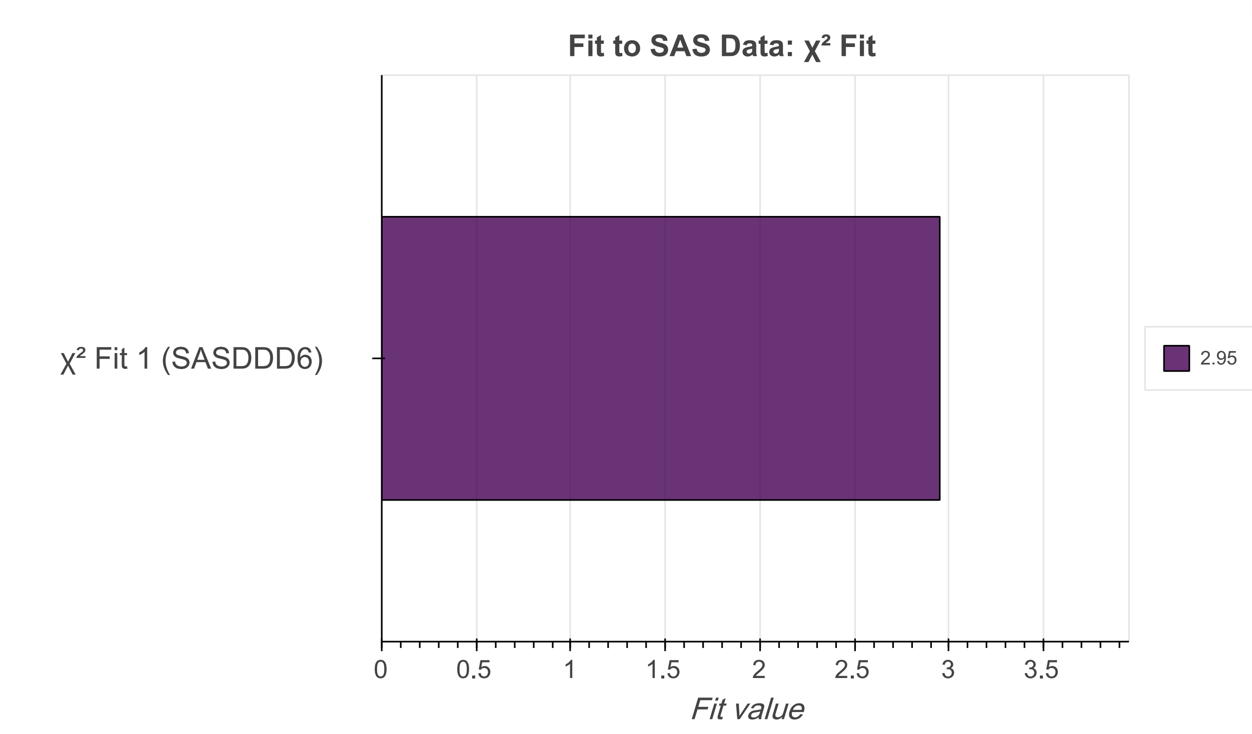
187 Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers
Sidechain outliers
188 Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers
Sidechain outliers
189 Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers
Sidechain outliers
190 Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers


191
Sidechain outliers
Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers
192
Sidechain outliers
Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers
193
Sidechain outliers
Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers
194
Sidechain outliers
Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers
195
Sidechain outliers
Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers
196
Sidechain outliers
Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers
197
Sidechain outliers
Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers
198
Sidechain outliers
Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers
199
Sidechain outliers
Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers
200
Sidechain outliers
Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers


201
Sidechain outliers
Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers
202
Sidechain outliers
Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers
203
Sidechain outliers
Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers
204
Sidechain outliers
Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers
205
Sidechain outliers
Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers
206
Sidechain outliers
Ramachandran outliers
Clashscore
0 20 40 60 80 100 120
Outliers


Data Quality for SAS: Rg Analysis
Guinier (SASDDD6)
P(r) (SASDDD6)
3.89 nm
4.02 nm
0 1 2 3 4 5
Distance (nm)



Ensemble information

This entry consists of 2 distinct ensemble(s).

Summary

This entry consists of 206 unique models, with 1 subunits in each model. A total of 22 datasets or restraints were used to build this entry. Each model is represented by 0 rigid bodies and 1 flexible or non-rigid units.

Entry composition

There are 206 unique types of models in this entry.These models are titled M1, M2, M2 respectively.

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
1	1	1	hGBP1 wildtype	A	A	583
2	1	1	hGBP1 wildtype	A	A	583
3	1	1	hGBP1 wildtype	A	A	583
4	1	1	hGBP1 wildtype	A	A	583
5	1	1	hGBP1 wildtype	A	A	583
6	1	1	hGBP1 wildtype	A	A	583
7	1	1	hGBP1 wildtype	A	A	583
8	1	1	hGBP1 wildtype	A	A	583
9	1	1	hGBP1 wildtype	A	A	583
10	1	1	hGBP1 wildtype	A	A	583
11	1	1	hGBP1 wildtype	A	A	583
12	1	1	hGBP1 wildtype	A	A	583
13	1	1	hGBP1 wildtype	A	A	583
14	1	1	hGBP1 wildtype	A	A	583
15	1	1	hGBP1 wildtype	A	A	583

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
16	1	1	hGBP1 wildtype	A	A	583
17	1	1	hGBP1 wildtype	A	A	583
18	1	1	hGBP1 wildtype	A	A	583
19	1	1	hGBP1 wildtype	A	A	583
20	1	1	hGBP1 wildtype	A	A	583
21	1	1	hGBP1 wildtype	A	A	583
22	1	1	hGBP1 wildtype	A	A	583
23	1	1	hGBP1 wildtype	A	A	583
24	1	1	hGBP1 wildtype	A	A	583
25	1	1	hGBP1 wildtype	A	A	583
26	1	1	hGBP1 wildtype	A	A	583
27	1	1	hGBP1 wildtype	A	A	583
28	1	1	hGBP1 wildtype	A	A	583
29	1	1	hGBP1 wildtype	A	A	583
30	1	1	hGBP1 wildtype	A	A	583

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
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32	1	1	hGBP1 wildtype	A	A	583
33	1	1	hGBP1 wildtype	A	A	583
34	1	1	hGBP1 wildtype	A	A	583
35	1	1	hGBP1 wildtype	A	A	583
36	1	1	hGBP1 wildtype	A	A	583
37	1	1	hGBP1 wildtype	A	A	583
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39	1	1	hGBP1 wildtype	A	A	583
40	1	1	hGBP1 wildtype	A	A	583
41	1	1	hGBP1 wildtype	A	A	583
42	1	1	hGBP1 wildtype	A	A	583
43	1	1	hGBP1 wildtype	A	A	583
44	1	1	hGBP1 wildtype	A	A	583
45	1	1	hGBP1 wildtype	A	A	583

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
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47	1	1	hGBP1 wildtype	A	A	583
48	1	1	hGBP1 wildtype	A	A	583
49	1	1	hGBP1 wildtype	A	A	583
50	1	1	hGBP1 wildtype	A	A	583
51	1	1	hGBP1 wildtype	A	A	583
52	1	1	hGBP1 wildtype	A	A	583
53	1	1	hGBP1 wildtype	A	A	583
54	1	1	hGBP1 wildtype	A	A	583
55	1	1	hGBP1 wildtype	A	A	583
56	1	1	hGBP1 wildtype	A	A	583
57	1	1	hGBP1 wildtype	A	A	583
58	1	1	hGBP1 wildtype	A	A	583
59	1	1	hGBP1 wildtype	A	A	583
60	1	1	hGBP1 wildtype	A	A	583

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
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62	1	1	hGBP1 wildtype	A	A	583
63	1	1	hGBP1 wildtype	A	A	583
64	1	1	hGBP1 wildtype	A	A	583
65	1	1	hGBP1 wildtype	A	A	583
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67	1	1	hGBP1 wildtype	A	A	583
68	1	1	hGBP1 wildtype	A	A	583
69	1	1	hGBP1 wildtype	A	A	583
70	1	1	hGBP1 wildtype	A	A	583
71	1	1	hGBP1 wildtype	A	A	583
72	1	1	hGBP1 wildtype	A	A	583
73	1	1	hGBP1 wildtype	A	A	583
74	1	1	hGBP1 wildtype	A	A	583
75	1	1	hGBP1 wildtype	A	A	583

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
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77	1	1	hGBP1 wildtype	A	A	583
78	1	1	hGBP1 wildtype	A	A	583
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80	1	1	hGBP1 wildtype	A	A	583
81	1	1	hGBP1 wildtype	A	A	583
82	1	1	hGBP1 wildtype	A	A	583
83	1	1	hGBP1 wildtype	A	A	583
84	1	1	hGBP1 wildtype	A	A	583
85	1	1	hGBP1 wildtype	A	A	583
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88	1	1	hGBP1 wildtype	A	A	583
89	1	1	hGBP1 wildtype	A	A	583
90	1	1	hGBP1 wildtype	A	A	583

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
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92	1	1	hGBP1 wildtype	A	A	583
93	1	1	hGBP1 wildtype	A	A	583
94	1	1	hGBP1 wildtype	A	A	583
95	1	1	hGBP1 wildtype	A	A	583
96	1	1	hGBP1 wildtype	A	A	583
97	1	1	hGBP1 wildtype	A	A	583
98	1	1	hGBP1 wildtype	A	A	583
99	1	1	hGBP1 wildtype	A	A	583
100	1	1	hGBP1 wildtype	A	A	583
101	1	1	hGBP1 wildtype	A	A	583
102	1	1	hGBP1 wildtype	A	A	583
103	1	1	hGBP1 wildtype	A	A	583
104	1	1	hGBP1 wildtype	A	A	583
105	1	1	hGBP1 wildtype	A	A	583

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
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110	1	1	hGBP1 wildtype	A	A	583
111	1	1	hGBP1 wildtype	A	A	583
112	1	1	hGBP1 wildtype	A	A	583
113	1	1	hGBP1 wildtype	A	A	583
114	1	1	hGBP1 wildtype	A	A	583
115	1	1	hGBP1 wildtype	A	A	583
116	1	1	hGBP1 wildtype	A	A	583
117	1	1	hGBP1 wildtype	A	A	583
118	1	1	hGBP1 wildtype	A	A	583
119	1	1	hGBP1 wildtype	A	A	583
120	1	1	hGBP1 wildtype	A	A	583

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
121	1	1	hGBP1 wildtype	A	A	583
122	1	1	hGBP1 wildtype	A	A	583
123	1	1	hGBP1 wildtype	A	A	583
124	1	1	hGBP1 wildtype	A	A	583
125	1	1	hGBP1 wildtype	A	A	583
126	1	1	hGBP1 wildtype	A	A	583
127	1	1	hGBP1 wildtype	A	A	583
128	1	1	hGBP1 wildtype	A	A	583
129	1	1	hGBP1 wildtype	A	A	583
130	1	1	hGBP1 wildtype	A	A	583
131	1	1	hGBP1 wildtype	A	A	583
132	1	1	hGBP1 wildtype	A	A	583
133	1	1	hGBP1 wildtype	A	A	583
134	1	1	hGBP1 wildtype	A	A	583
135	1	1	hGBP1 wildtype	A	A	583

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
136	1	1	hGBP1 wildtype	A	A	583
137	1	1	hGBP1 wildtype	A	A	583
138	1	1	hGBP1 wildtype	A	A	583
139	1	1	hGBP1 wildtype	A	A	583
140	1	1	hGBP1 wildtype	A	A	583
141	1	1	hGBP1 wildtype	A	A	583
142	1	1	hGBP1 wildtype	A	A	583
143	1	1	hGBP1 wildtype	A	A	583
144	1	1	hGBP1 wildtype	A	A	583
145	1	1	hGBP1 wildtype	A	A	583
146	1	1	hGBP1 wildtype	A	A	583
147	1	1	hGBP1 wildtype	A	A	583
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149	1	1	hGBP1 wildtype	A	A	583
150	1	1	hGBP1 wildtype	A	A	583

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
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155	1	1	hGBP1 wildtype	A	A	583
156	1	1	hGBP1 wildtype	A	A	583
157	1	1	hGBP1 wildtype	A	A	583
158	1	1	hGBP1 wildtype	A	A	583
159	1	1	hGBP1 wildtype	A	A	583
160	1	1	hGBP1 wildtype	A	A	583
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162	1	1	hGBP1 wildtype	A	A	583
163	1	1	hGBP1 wildtype	A	A	583
164	1	1	hGBP1 wildtype	A	A	583
165	1	1	hGBP1 wildtype	A	A	583

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
166	1	1	hGBP1 wildtype	A	A	583
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170	1	1	hGBP1 wildtype	A	A	583
171	1	1	hGBP1 wildtype	A	A	583
172	1	1	hGBP1 wildtype	A	A	583
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178	1	1	hGBP1 wildtype	A	A	583
179	1	1	hGBP1 wildtype	A	A	583
180	1	1	hGBP1 wildtype	A	A	583

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
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185	1	1	hGBP1 wildtype	A	A	583
186	1	1	hGBP1 wildtype	A	A	583
187	1	1	hGBP1 wildtype	A	A	583
188	1	1	hGBP1 wildtype	A	A	583
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192	1	1	hGBP1 wildtype	A	A	583
193	1	1	hGBP1 wildtype	A	A	583
194	1	1	hGBP1 wildtype	A	A	583
195	1	1	hGBP1 wildtype	A	A	583

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
196	1	1	hGBP1 wildtype	A	A	583
197	1	1	hGBP1 wildtype	A	A	583
198	1	1	hGBP1 wildtype	A	A	583
199	1	1	hGBP1 wildtype	A	A	583
200	1	1	hGBP1 wildtype	A	A	583
201	1	1	hGBP1 wildtype	A	A	583
202	1	1	hGBP1 wildtype	A	A	583
203	1	1	hGBP1 wildtype	A	A	583
204	1	1	hGBP1 wildtype	A	A	583
205	1	1	hGBP1 wildtype	A	A	583
206	1	1	hGBP1 wildtype	A	A	583

Datasets used for modeling

There are 22 unique datasets used to build the models in this entry.

ID	Dataset type	Database name	Data access code
1	Experimental model	PDB	1DG3
2	SAS data	SASBDB	SASDDD6

ID	Dataset type	Database name	Data access code
3	Single molecule FRET data	File	10.5281/zenodo.6534557
4	Single molecule FRET data	File	10.5281/zenodo.6534557
5	Single molecule FRET data	File	10.5281/zenodo.6534557
6	Single molecule FRET data	File	10.5281/zenodo.6534557
7	Single molecule FRET data	File	10.5281/zenodo.6534557
8	Single molecule FRET data	File	10.5281/zenodo.6534557
9	Single molecule FRET data	File	10.5281/zenodo.6534557
10	Single molecule FRET data	File	10.5281/zenodo.6534557
11	Single molecule FRET data	File	10.5281/zenodo.6534557
12	Single molecule FRET data	File	10.5281/zenodo.6534557
13	Single molecule FRET data	File	10.5281/zenodo.6534557
14	Single molecule FRET data	File	10.5281/zenodo.6534557
15	Other	File	10.5281/zenodo.6534557
16	Other	File	10.5281/zenodo.6534557
17	Other	File	10.5281/zenodo.6534557
18	Other	File	10.5281/zenodo.6534557
19	Other	File	10.5281/zenodo.6534557
20	Other	File	10.5281/zenodo.6534557
21	Other	File	10.5281/zenodo.6534557
22	Other	File	10.5281/zenodo.6534557

Representation

This entry has only one representation and includes 0 rigid bodies and 1 flexible units

Chain ID	Rigid bodies	Non-rigid segments
A	-	1-583

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	Rigid body docking	None	None	True	False
2	1	None	Targeted NMSim	None	None	True	False
3	1	None	MD simulation	None	None	True	False

There are 4 software packages reported in this entry.

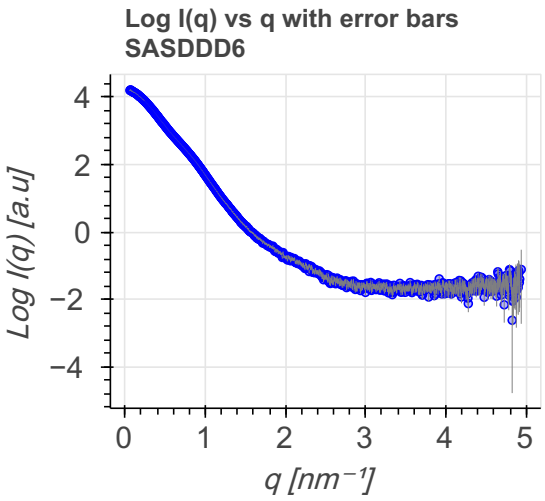
ID	Software name	Software version	Software classification	Software location
1	FPS	Not available	Model building	Not available
2	NMSim	Not available	Model building	http://www.nmsim.de
3	Amber 14	Not available	Model building	Not available
4	DeerAnalysis2006	Not available	Data analysis	Not available

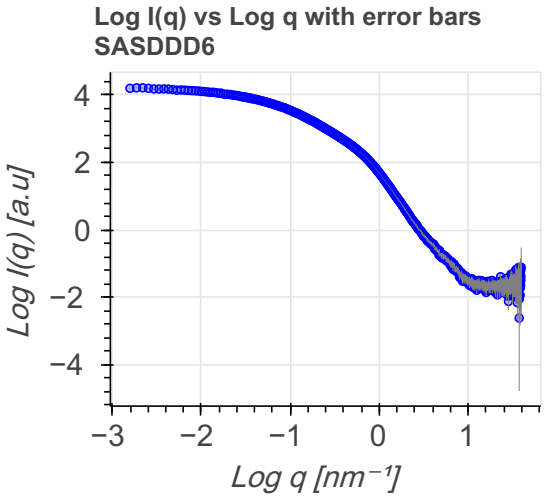
Data quality

Scattering profile

SAS data used in this integrative model was obtained from 1 deposited SASBDB entry (entries).

Scattering profile for SASDDD6: data from solutions of biological macromolecules are presented as both log I(q) vs q and log I(q) vs log (q) based on SAS validation task force (SASvtf) recommendations. I(q) is the intensity (in arbitrary units) and q is the modulus of the scattering vector.





Key experimental estimates

Molecular weight (MW) estimates from experiments and analysis: true molecular weight can be compared to the Porod estimate from scattering profiles.

SASDB ID	Chemical composition MW	Standard MW	Porod Volume/MW
SASDDD6	65.3 kDa	N/A	1.59 nm³/kDa

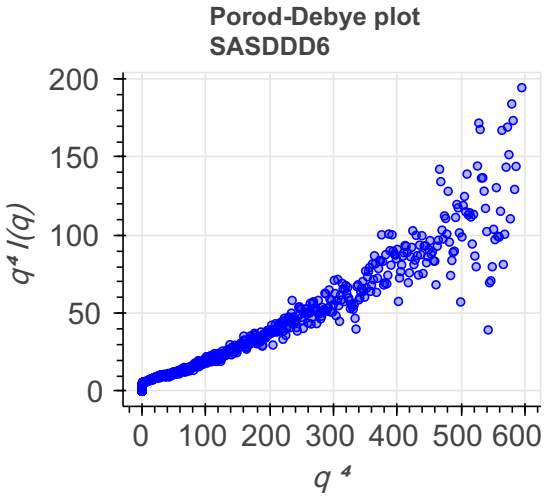
Volume estimates from experiments and analysis: estimated volume can be compared to Porod volume obtained from scattering profiles.

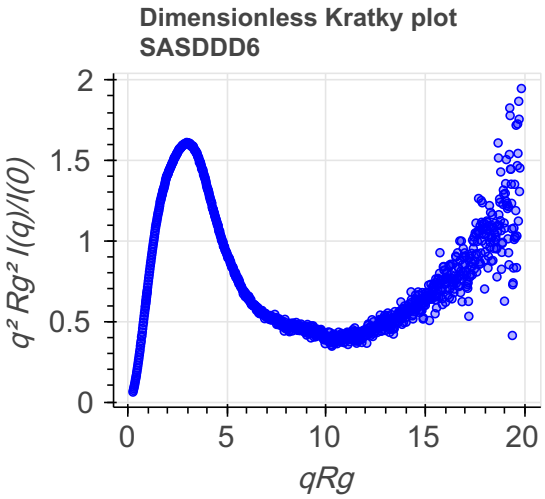
SASDB ID	Estimated Volume	Porod Volume	Specific Volume	Sample Contrast	Sample Concentration
SASDDD6	N/A	104.90 nm³	N/A	N/A	16.10 mg/mL

Flexibility analysis

Flexibility analysis for SASDDD6: In a Porod-Debye plot, a clear plateau is observed for globular (partial or fully folded) domains, whereas, fully unfolded domains are devoid of any discernable plateau. For details, refer to Figure 5 in Rambo

and Tainer, 2011 . In a Kratky plot, a parabolic shape is observed for globular (partial or fully folded) domains and a hyperbolic shape is observed for fully unfolded domains.



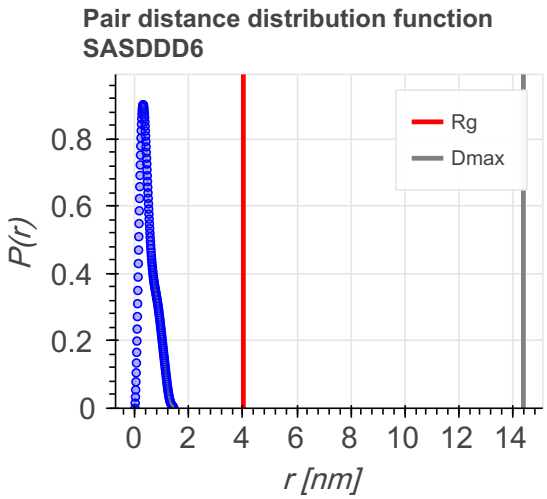


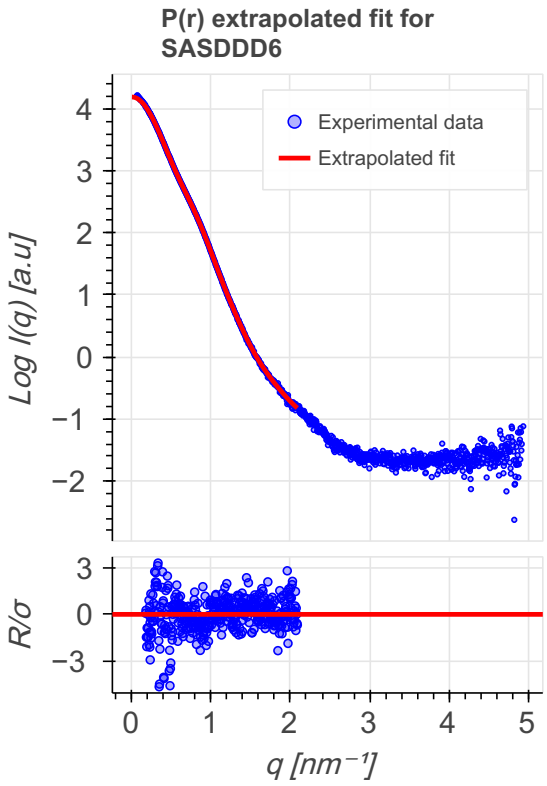
Pair-distance distribution analysis

P(r) analysis: P(r) represents the distribution of distances between all pairs of atoms within the particle weighted by the respective electron densities. P(r) is the Fourier transform of I(s) (and vice versa). R_g can be estimated from integrating the P(r) function. Agreement between the P(r) and Guinier-determined R_g (table below) is a good measure of the self-consistency of the SAS profile. R_g is a measure for the overall size of a macromolecule; e.g. a protein with a smaller R_g is more compact than a protein with a larger R_g, provided both have the same molecular weight (MW). The point where P(r) is decaying to zero is called D_{max} and represents the maximum size of the particle.

SASDB ID	Software used	Dmax	Dmax error	Rg	Rg error
SASDDD6	GNOM 5.0	14.400 nm	N/A	4.018 nm	N/A

P(r) for SASDDD6: The value of P(r) should be zero beyond r=D_{max}.





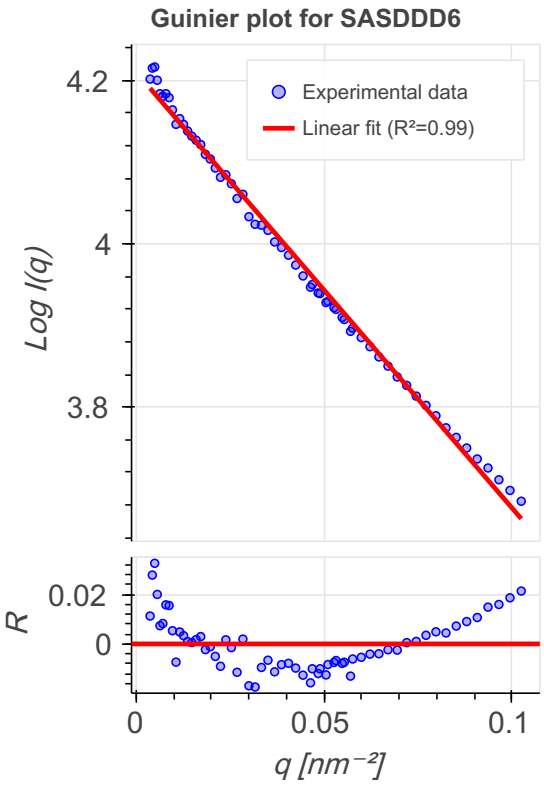
Guinier analysis

Guinier analysis: agreement between the P(r) and Guinier-determined R_g (table below) is a good measure of the self-consistency of the SAS profile. Molecular weight estimates can also be compared to Porod and sample molecular weights for consistency.

SASDB ID	Rg	Rg error	MW	MW error
SASDDD6	3.89 nm	0.06 nm	N/A	N/A

Guinier analysis for SASDDD6: the linearity of the Guinier plot is a sensitive indicator of the quality of the experimental SAS data; a linear Guinier plot is a necessary but not sufficient demonstration that a solution contains monodisperse particles of the same size. Deviations from linearity usually point to strong interference effects, polydispersity of the

samples or improper background subtraction. Residual value plot and coefficient of determination (R^2) are measures to assess linear fit to the data. A perfect fit has an R^2 value of 1. Residual values should be equally and randomly spaced around the horizontal axis.



Single molecule FRET

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

Bond angle outliers do not exist or can not be evaluated for this model

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	2.87	27

Model ID	Clash score	Number of clashes
2	2.76	26
3	3.72	35
4	2.98	28
5	3.51	33
6	1.06	10
7	0.64	6
8	0.85	8
9	3.19	30
10	1.17	11
11	1.06	10
12	1.38	13
13	2.98	28
14	0.96	9
15	1.60	15
16	0.53	5
17	1.70	16
18	0.53	5
19	3.30	31
20	4.04	38
21	3.72	35
22	3.30	31
23	1.28	12
24	2.87	27

Model ID	Clash score	Number of clashes
25	1.81	17
26	1.49	14
27	1.28	12
28	1.49	14
29	0.96	9
30	2.02	19
31	1.49	14
32	1.49	14
33	1.06	10
34	1.06	10
35	1.06	10
36	0.74	7
37	1.06	10
38	1.17	11
39	0.85	8
40	1.28	12
41	2.87	27
42	1.06	10
43	1.38	13
44	2.23	21
45	1.60	15
46	1.06	10
47	1.06	10

Model ID	Clash score	Number of clashes
48	1.06	10
49	0.64	6
50	3.62	34
51	1.06	10
52	0.74	7
53	2.98	28
54	4.36	41
55	4.15	39
56	3.72	35
57	0.85	8
58	0.64	6
59	1.38	13
60	1.49	14
61	0.96	9
62	0.64	6
63	0.96	9
64	0.85	8
65	0.96	9
66	1.06	10
67	2.87	27
68	2.13	20
69	4.36	41
70	1.06	10

Model ID	Clash score	Number of clashes
71	0.85	8
72	0.53	5
73	1.06	10
74	2.02	19
75	4.04	38
76	1.49	14
77	0.74	7
78	0.64	6
79	1.60	15
80	0.85	8
81	0.96	9
82	0.85	8
83	1.17	11
84	4.68	44
85	1.28	12
86	0.96	9
87	2.34	22
88	3.40	32
89	2.98	28
90	1.28	12
91	2.76	26
92	0.85	8
93	1.06	10

Model ID	Clash score	Number of clashes
94	3.51	33
95	1.49	14
96	3.30	31
97	0.64	6
98	3.72	35
99	1.49	14
100	1.38	13
101	1.38	13
102	0.96	9
103	1.06	10
104	2.13	20
105	0.64	6
106	0.21	2
107	1.60	15
108	1.49	14
109	1.60	15
110	1.17	11
111	1.17	11
112	0.74	7
113	1.70	16
114	1.38	13
115	0.96	9
116	1.17	11

Model ID	Clash score	Number of clashes
117	1.06	10
118	0.32	3
119	0.74	7
120	0.64	6
121	1.60	15
122	0.74	7
123	1.17	11
124	1.17	11
125	0.74	7
126	1.49	14
127	0.43	4
128	0.53	5
129	0.96	9
130	1.28	12
131	1.38	13
132	1.38	13
133	0.96	9
134	1.17	11
135	1.06	10
136	0.96	9
137	2.02	19
138	1.17	11
139	1.06	10

Model ID	Clash score	Number of clashes
140	1.38	13
141	0.64	6
142	3.62	34
143	1.38	13
144	0.85	8
145	1.28	12
146	1.28	12
147	1.60	15
148	1.17	11
149	0.53	5
150	0.64	6
151	1.06	10
152	1.49	14
153	3.83	36
154	0.85	8
155	1.38	13
156	0.64	6
157	1.17	11
158	1.28	12
159	0.64	6
160	1.49	14
161	0.21	2
162	0.96	9

Model ID	Clash score	Number of clashes
163	0.64	6
164	1.38	13
165	3.51	33
166	1.38	13
167	3.72	35
168	3.62	34
169	1.60	15
170	0.64	6
171	0.96	9
172	1.17	11
173	0.96	9
174	1.38	13
175	1.06	10
176	2.55	24
177	3.40	32
178	1.06	10
179	1.17	11
180	2.34	22
181	3.51	33
182	3.30	31
183	5.21	49
184	3.30	31
185	2.87	27

Model ID	Clash score	Number of clashes
186	0.74	7
187	1.81	17
188	3.30	31
189	0.96	9
190	1.06	10
191	1.49	14
192	1.49	14
193	1.91	18
194	3.62	34
195	3.93	37
196	2.55	24
197	0.43	4
198	1.28	12
199	0.74	7
200	3.93	37
201	0.96	9
202	1.17	11
203	1.81	17
204	1.38	13
205	1.28	12
206	0.64	6

All 3197 close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Model ID	Atom-1	Atom-2	Clash overlap (Å)

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:44:VAL:HG22	A:45:GLY:H	0.688
1	A:81:TRP:C	A:94:VAL:HG23	0.588
1	A:283:SER:HB3	A:316:VAL:HG21	0.586
1	A:348:GLU:HB2	A:452:ARG:HH12	0.567
1	A:120:VAL:HG21	A:148:LEU:HD21	0.551
1	A:34:ILE:HD11	A:92:ILE:HD13	0.546
1	A:350:LEU:H	A:350:LEU:HD13	0.537
1	A:286:ILE:HG23	A:292:ARG:NH1	0.533
1	A:286:ILE:HG21	A:316:VAL:HG23	0.526
1	A:177:ASP:HA	A:230:PHE:CZ	0.485
1	A:80:MET:HE3	A:94:VAL:HG21	0.480
1	A:292:ARG:HG2	A:319:LEU:HD21	0.473
1	A:316:VAL:HG13	A:317:LEU:HD13	0.472
1	A:185:PHE:CD1	A:237:VAL:HG23	0.469
1	A:270:CYS:HA	A:273:ILE:HG22	0.458
1	A:366:GLU:HA	A:369:ILE:HG22	0.457
1	A:11:MET:HG3	A:27:ALA:HB2	0.452
1	A:147:GLU:C	A:151:ARG:HH21	0.442
1	A:311:CYS:SG	A:313:GLU:HB3	0.434
1	A:384:LEU:O	A:384:LEU:HD12	0.433
1	A:286:ILE:HG23	A:292:ARG:HH12	0.430
1	A:182:LEU:HD23	A:185:PHE:CD1	0.429
1	A:288:VAL:HA	A:292:ARG:HD3	0.424

Model ID	Atom-1	Atom-2	Clash overlap (Å)
1	A:347:THR:N	A:454:GLY:HA2	0.422
1	A:5:ILE:HG13	A:7:MET:HE3	0.417
1	A:292:ARG:HH21	A:296:LEU:HD13	0.415
1	A:236:PHE:C	A:236:PHE:CD2	0.413
2	A:336:GLU:HA	A:391:LYS:HE2	0.694
2	A:80:MET:HE3	A:94:VAL:HG21	0.685
2	A:120:VAL:HG21	A:148:LEU:HD21	0.559
2	A:13:LEU:HD21	A:31:LEU:HD22	0.538
2	A:339:MET:HE1	A:395:PHE:CD1	0.521
2	A:230:PHE:CD2	A:231:PRO:HD2	0.504
2	A:289:ASN:O	A:293:LEU:HD22	0.499
2	A:38:MET:HB3	A:288:VAL:HG13	0.476
2	A:406:ARG:C	A:406:ARG:HD3	0.473
2	A:300:TYR:CZ	A:310:PRO:HG3	0.469
2	A:440:LEU:HD11	A:465:LEU:HD22	0.441
2	A:234:LYS:HD2	A:272:TYR:CE1	0.435
2	A:324:ASN:HD21	A:374:LYS:HB3	0.434
2	A:395:PHE:CD2	A:399:ASN:HB3	0.430
2	A:58:LEU:HD11	A:273:ILE:HD13	0.427
2	A:206:LEU:HA	A:223:ARG:HD3	0.426
2	A:21:LEU:HD23	A:114:TRP:CE2	0.424
2	A:197:THR:HB	A:198:PRO:HD2	0.419
2	A:21:LEU:CD2	A:114:TRP:CE2	0.416

Model ID	Atom-1	Atom-2	Clash overlap (Å)
2	A:12:CYS:N	A:79:TRP:CE3	0.415
2	A:175:PHE:CG	A:176:PRO:N	0.415
2	A:145:VAL:HG22	A:229:PHE:CE1	0.413
2	A:335:TYR:CD1	A:391:LYS:HD3	0.412
2	A:80:MET:CE	A:94:VAL:HG21	0.407
2	A:351:GLN:HA	A:354:LEU:H	0.405
2	A:280:LYS:HB3	A:288:VAL:HG12	0.400
3	A:55:MET:HE2	A:95:LEU:HB3	0.681
3	A:353:LEU:HD11	A:395:PHE:CE2	0.647
3	A:316:VAL:HG13	A:317:LEU:HD22	0.639
3	A:122:LEU:HD11	A:296:LEU:HD22	0.554
3	A:171:PHE:CZ	A:229:PHE:CD1	0.545
3	A:58:LEU:HD23	A:95:LEU:HD21	0.534
3	A:175:PHE:CD2	A:176:PRO:HD2	0.528
3	A:350:LEU:C	A:350:LEU:HD22	0.500
3	A:122:LEU:HD12	A:293:LEU:HD12	0.489
3	A:177:ASP:HA	A:230:PHE:CZ	0.480
3	A:221:LEU:N	A:222:PRO:HD2	0.451
3	A:238:PHE:CZ	A:262:PHE:CD2	0.444
3	A:411:LEU:HG	A:464:TYR:CD1	0.441
3	A:185:PHE:CD1	A:237:VAL:HG23	0.440
3	A:353:LEU:HD11	A:395:PHE:CD2	0.439
3	A:414:ILE:HD11	A:446:LYS:HB3	0.435

Model ID	Atom-1	Atom-2	Clash overlap (Å)
3	A:196:LEU:HD11	A:200:GLU:HB3	0.432
3	A:44:VAL:HG22	A:45:GLY:H	0.428
3	A:309:LEU:HA	A:310:PRO:HD3	0.425
3	A:346:PRO:HB2	A:347:THR:O	0.425
3	A:10:PRO:HA	A:79:TRP:CE2	0.422
3	A:80:MET:H	A:96:LEU:HA	0.422
3	A:291:PRO:HB2	A:319:LEU:HD11	0.418
3	A:230:PHE:CD2	A:231:PRO:HD2	0.417
3	A:374:LYS:HZ3	A:383:GLU:CD	0.415
3	A:181:THR:HG22	A:236:PHE:HD1	0.413
3	A:368:PHE:HA	A:371:SER:HB3	0.411
3	A:447:TYR:CD1	A:461:LEU:HD13	0.411
3	A:548:ARG:C	A:548:ARG:HD2	0.411
3	A:292:ARG:HE	A:316:VAL:HB	0.411
3	A:335:TYR:CD1	A:391:LYS:HG3	0.409
3	A:40:VAL:HG23	A:94:VAL:HG13	0.408
3	A:38:MET:HE2	A:288:VAL:HG22	0.403
3	A:486:GLU:O	A:489:ILE:HG22	0.402
3	A:55:MET:HB2	A:55:MET:HE3	0.401
4	A:121:LEU:HD13	A:312:MET:HG2	0.666
4	A:320:ALA:HB2	A:374:LYS:HE2	0.518
4	A:453:LYS:HB3	A:457:ALA:HB2	0.512
4	A:44:VAL:HG22	A:45:GLY:H	0.503

Model ID	Atom-1	Atom-2	Clash overlap (Å)
4	A:114:TRP:CH2	A:300:TYR:CD2	0.499
4	A:124:SER:HB3	A:280:LYS:HA	0.494
4	A:21:LEU:C	A:22:MET:HG3	0.491
4	A:114:TRP:CZ3	A:300:TYR:CE2	0.490
4	A:300:TYR:CE2	A:310:PRO:HG3	0.489
4	A:329:GLN:O	A:333:ALA:HB3	0.489
4	A:339:MET:HE3	A:395:PHE:CD1	0.481
4	A:7:MET:SD	A:61:LYS:HE2	0.478
4	A:130:SER:HB3	A:180:TRP:CH2	0.471
4	A:121:LEU:HD23	A:300:TYR:CD1	0.467
4	A:455:ILE:HG23	A:456:GLN:H	0.459
4	A:357:HIS:C	A:357:HIS:CD2	0.450
4	A:175:PHE:CD2	A:176:PRO:HG2	0.449
4	A:361:GLU:CG	A:388:LEU:HD21	0.448
4	A:185:PHE:CD1	A:237:VAL:HG23	0.447
4	A:116:PHE:CE2	A:126:PHE:CZ	0.439
4	A:8:THR:O	A:10:PRO:HD3	0.437
4	A:134:ILE:HG21	A:205:SER:HB2	0.434
4	A:152:ILE:HG21	A:171:PHE:CE1	0.423
4	A:450:GLU:CB	A:453:LYS:HZ1	0.417
4	A:345:LEU:HA	A:346:PRO:HA	0.416
4	A:134:ILE:HG21	A:205:SER:CB	0.414
4	A:1:MET:HE3	A:82:CYS:O	0.407

Model ID	Atom-1	Atom-2	Clash overlap (Å)
4	A:106:LYS:CA	A:106:LYS:HE2	0.406
5	A:253:LEU:HD23	A:257:GLU:HG2	0.627
5	A:79:TRP:CG	A:80:MET:H	0.594
5	A:80:MET:HG2	A:94:VAL:HG21	0.552
5	A:419:GLU:OE2	A:468:LYS:HE2	0.541
5	A:198:PRO:HA	A:201:TYR:CD1	0.537
5	A:79:TRP:HE1	A:81:TRP:HB2	0.518
5	A:79:TRP:CG	A:80:MET:N	0.516
5	A:570:ARG:HG2	A:570:ARG:HH11	0.496
5	A:14:ILE:HD13	A:21:LEU:HD21	0.495
5	A:427:TYR:CE1	A:475:ILE:HG12	0.491
5	A:21:LEU:C	A:21:LEU:HD23	0.482
5	A:444:LYS:HE2	A:458:GLU:OE2	0.477
5	A:226:ILE:HD12	A:233:LYS:HE2	0.476
5	A:570:ARG:HG2	A:570:ARG:NH1	0.457
5	A:397:LYS:HE2	A:397:LYS:O	0.456
5	A:55:MET:HG3	A:95:LEU:HD21	0.451
5	A:416:SER:HB3	A:417:PRO:HD3	0.450
5	A:43:ILE:HG12	A:51:LYS:HG3	0.441
5	A:55:MET:CG	A:95:LEU:HD21	0.441
5	A:13:LEU:HD22	A:27:ALA:HB1	0.439
5	A:500:GLN:O	A:503:ALA:HB3	0.432
5	A:483:THR:HG23	A:486:GLU:H	0.430

Model ID	Atom-1	Atom-2	Clash overlap (Å)
5	A:300:TYR:CE2	A:310:PRO:HG3	0.426
5	A:148:LEU:HD12	A:151:ARG:HB2	0.425
5	A:238:PHE:CE2	A:262:PHE:CD2	0.424
5	A:515:GLN:O	A:516:MET:C	0.423
5	A:202:LEU:HD21	A:235:CYS:HB2	0.420
5	A:40:VAL:HG21	A:122:LEU:HD23	0.417
5	A:296:LEU:HD12	A:315:ALA:CB	0.416
5	A:40:VAL:HG13	A:123:SER:C	0.413
5	A:60:GLY:O	A:61:LYS:HE3	0.410
5	A:155:LYS:HB3	A:155:LYS:HE3	0.406
5	A:300:TYR:CE2	A:310:PRO:CG	0.405
6	A:101:LEU:H	A:101:LEU:HD22	0.499
6	A:404:SER:HB3	A:456:GLN:HE22	0.498
6	A:59:ALA:HB1	A:81:TRP:CD1	0.460
6	A:116:PHE:CD2	A:144:TYR:CD1	0.458
6	A:128:TYR:CD1	A:180:TRP:CZ3	0.455
6	A:179:VAL:HG22	A:180:TRP:H	0.454
6	A:213:SER:H	A:216:ASP:HB3	0.453
6	A:55:MET:HG3	A:97:ASP:HB2	0.437
6	A:174:PHE:CG	A:312:MET:HE1	0.411
6	A:573:LYS:HA	A:576:ILE:HG22	0.402
7	A:426:ILE:H	A:426:ILE:HD12	0.650
7	A:43:ILE:HG13	A:129:ASN:HD21	0.512

Model ID	Atom-1	Atom-2	Clash overlap (Å)
7	A:482:LEU:H	A:482:LEU:HD23	0.482
7	A:453:LYS:HA	A:453:LYS:HE2	0.442
7	A:324:ASN:HB3	A:380:PHE:CE1	0.409
7	A:286:ILE:HG21	A:373:PHE:CE2	0.401
8	A:29:LYS:HA	A:32:SER:HB2	0.548
8	A:8:THR:O	A:61:LYS:HE2	0.480
8	A:339:MET:SD	A:391:LYS:HE3	0.472
8	A:38:MET:H	A:287:GLN:NE2	0.436
8	A:393:ASP:OD2	A:397:LYS:HE2	0.432
8	A:273:ILE:HA	A:273:ILE:HD12	0.420
8	A:411:LEU:HD12	A:415:PHE:HB3	0.415
8	A:194:GLN:HG3	A:195:PRO:HD2	0.403
9	A:178:PHE:CZ	A:226:ILE:HD11	0.631
9	A:347:THR:HG21	A:353:LEU:HD13	0.558
9	A:55:MET:HE1	A:97:ASP:HB2	0.528
9	A:353:LEU:HD11	A:395:PHE:CD1	0.527
9	A:433:TYR:CZ	A:476:LEU:HG	0.523
9	A:427:TYR:CE2	A:476:LEU:HD23	0.518
9	A:114:TRP:CZ2	A:304:ILE:HG21	0.515
9	A:487:LYS:HE2	A:491:VAL:HG11	0.511
9	A:61:LYS:HA	A:61:LYS:HE2	0.495
9	A:177:ASP:HA	A:230:PHE:CE2	0.494
9	A:292:ARG:HA	A:319:LEU:HD11	0.489

Model ID	Atom-1	Atom-2	Clash overlap (Å)
9	A:38:MET:HE1	A:293:LEU:HD22	0.485
9	A:83:VAL:HG23	A:84:PRO:HD2	0.478
9	A:230:PHE:CD2	A:231:PRO:HD2	0.469
9	A:80:MET:HE3	A:94:VAL:HG21	0.468
9	A:174:PHE:CD2	A:282:LEU:HD12	0.465
9	A:39:VAL:HG11	A:91:HIS:CE1	0.463
9	A:136:GLN:HA	A:139:MET:SD	0.461
9	A:319:LEU:HA	A:322:ILE:HG22	0.460
9	A:11:MET:HE1	A:27:ALA:HB2	0.453
9	A:165:VAL:HG13	A:166:GLU:H	0.444
9	A:543:LEU:C	A:543:LEU:HD23	0.429
9	A:202:LEU:HD21	A:235:CYS:HB3	0.428
9	A:175:PHE:CD2	A:176:PRO:HG2	0.418
9	A:487:LYS:O	A:491:VAL:HG12	0.414
9	A:450:GLU:HA	A:451:PRO:HD3	0.412
9	A:47:TYR:CG	A:48:ARG:N	0.411
9	A:55:MET:CE	A:97:ASP:HB2	0.410
9	A:238:PHE:CE2	A:262:PHE:CD2	0.406
9	A:350:LEU:O	A:350:LEU:HD13	0.404
10	A:14:ILE:HD12	A:21:LEU:HD11	0.605
10	A:134:ILE:HG21	A:205:SER:HB2	0.527
10	A:433:TYR:CE2	A:475:ILE:HG21	0.512
10	A:420:GLU:HA	A:423:LYS:HE2	0.472

Model ID	Atom-1	Atom-2	Clash overlap (Å)
10	A:224:LEU:C	A:224:LEU:HD13	0.464
10	A:174:PHE:CG	A:175:PHE:HA	0.428
10	A:37:PRO:HD2	A:90:GLY:C	0.419
10	A:174:PHE:CD2	A:312:MET:HE2	0.419
10	A:392:ARG:HH21	A:393:ASP:CG	0.413
10	A:23:ALA:HB2	A:297:VAL:HG21	0.410
10	A:180:TRP:C	A:180:TRP:CD1	0.405
11	A:224:LEU:C	A:224:LEU:HD13	0.621
11	A:11:MET:HG2	A:12:CYS:N	0.575
11	A:148:LEU:HD23	A:168:SER:HA	0.530
11	A:11:MET:HG2	A:12:CYS:H	0.513
11	A:447:TYR:CE1	A:453:LYS:HE2	0.483
11	A:114:TRP:CZ2	A:118:LEU:HD22	0.430
11	A:516:MET:HG3	A:520:LYS:HE2	0.430
11	A:484:GLU:CD	A:484:GLU:H	0.423
11	A:54:LEU:HA	A:54:LEU:HD23	0.421
11	A:224:LEU:C	A:224:LEU:CD1	0.412
12	A:180:TRP:CD1	A:235:CYS:HG	0.593
12	A:328:VAL:HG21	A:383:GLU:HG2	0.533
12	A:484:GLU:CD	A:484:GLU:H	0.519
12	A:226:ILE:HA	A:229:PHE:CE2	0.516
12	A:447:TYR:CD1	A:461:LEU:HD13	0.512
12	A:281:THR:HG22	A:287:GLN:HA	0.486

Model ID	Atom-1	Atom-2	Clash overlap (Å)
12	A:491:VAL:O	A:495:LYS:HE2	0.466
12	A:80:MET:H	A:96:LEU:HA	0.459
12	A:579:LEU:HD12	A:583:MET:HE3	0.442
12	A:335:TYR:CD2	A:388:LEU:HD13	0.428
12	A:224:LEU:C	A:224:LEU:HD13	0.421
12	A:280:LYS:HE3	A:281:THR:O	0.416
12	A:67:LEU:HD12	A:74:HIS:H	0.400
13	A:182:LEU:HD23	A:185:PHE:CE1	0.602
13	A:177:ASP:HA	A:230:PHE:CZ	0.596
13	A:114:TRP:CH2	A:300:TYR:CD2	0.540
13	A:99:GLU:HB2	A:115:ILE:HD13	0.539
13	A:415:PHE:CE2	A:465:LEU:HD12	0.529
13	A:68:GLY:H	A:74:HIS:CE1	0.524
13	A:441:GLN:C	A:441:GLN:HE21	0.517
13	A:78:ILE:HG23	A:96:LEU:HD11	0.509
13	A:410:LEU:HD23	A:447:TYR:CE2	0.503
13	A:114:TRP:CZ3	A:300:TYR:CE2	0.499
13	A:36:GLN:HG3	A:37:PRO:HD2	0.479
13	A:182:LEU:HD23	A:185:PHE:CD1	0.479
13	A:100:GLY:C	A:101:LEU:HD22	0.476
13	A:250:LEU:HD13	A:258:LEU:HD11	0.456
13	A:163:ASN:HD22	A:309:LEU:CD2	0.441
13	A:198:PRO:HB2	A:235:CYS:HB3	0.436

Model ID	Atom-1	Atom-2	Clash overlap (Å)
13	A:262:PHE:HA	A:265:GLN:HB2	0.435
13	A:253:LEU:HD11	A:257:GLU:HB3	0.422
13	A:112:ASP:HA	A:115:ILE:HD12	0.414
13	A:573:LYS:HA	A:576:ILE:HG22	0.414
13	A:478:THR:HA	A:483:THR:HB	0.412
13	A:185:PHE:CD1	A:237:VAL:HA	0.409
13	A:40:VAL:HG21	A:80:MET:HE1	0.408
13	A:55:MET:HE1	A:97:ASP:HB2	0.406
13	A:230:PHE:HA	A:231:PRO:HD2	0.405
13	A:286:ILE:CD1	A:292:ARG:HE	0.405
13	A:353:LEU:HD11	A:395:PHE:CE2	0.405
13	A:374:LYS:HB3	A:374:LYS:NZ	0.400
14	A:162:GLU:CD	A:162:GLU:H	0.488
14	A:411:LEU:HD13	A:453:LYS:HE2	0.454
14	A:455:ILE:HG23	A:456:GLN:HB2	0.448
14	A:182:LEU:HD22	A:237:VAL:HG23	0.424
14	A:579:LEU:C	A:579:LEU:HD13	0.411
14	A:482:LEU:H	A:482:LEU:HD23	0.408
14	A:475:ILE:HG23	A:476:LEU:N	0.406
14	A:579:LEU:HA	A:579:LEU:HD22	0.403
14	A:224:LEU:C	A:224:LEU:HD13	0.401
15	A:46:LEU:H	A:46:LEU:HD12	0.648
15	A:46:LEU:CD1	A:46:LEU:H	0.615

Model ID	Atom-1	Atom-2	Clash overlap (Å)
15	A:414:ILE:HG23	A:443:LEU:HD22	0.562
15	A:6:HIS:CD2	A:30:ILE:HG21	0.540
15	A:468:LYS:HA	A:468:LYS:HE3	0.513
15	A:528:LEU:C	A:528:LEU:HD13	0.490
15	A:46:LEU:N	A:46:LEU:HD12	0.488
15	A:271:SER:HA	A:274:PHE:CE1	0.456
15	A:283:SER:HB2	A:312:MET:SD	0.455
15	A:389:GLU:CD	A:392:ARG:HE	0.446
15	A:38:MET:HE2	A:92:ILE:CG2	0.442
15	A:259:ASP:HA	A:260:PRO:HD2	0.431
15	A:455:ILE:HG22	A:515:GLN:NE2	0.415
15	A:317:LEU:C	A:317:LEU:HD13	0.404
15	A:372:SER:HB2	A:380:PHE:CD1	0.403
16	A:465:LEU:C	A:465:LEU:HD23	0.519
16	A:435:LEU:C	A:435:LEU:HD13	0.432
16	A:373:PHE:CD1	A:373:PHE:O	0.427
16	A:21:LEU:HD13	A:114:TRP:CE3	0.425
16	A:11:MET:HE2	A:27:ALA:HA	0.420
17	A:408:SER:HA	A:460:ILE:HD11	0.609
17	A:561:LEU:C	A:561:LEU:HD13	0.528
17	A:66:SER:HB3	A:74:HIS:CD2	0.521
17	A:378:HIS:CD2	A:381:GLN:HE22	0.511
17	A:335:TYR:CE1	A:391:LYS:HE2	0.505

Model ID	Atom-1	Atom-2	Clash overlap (Å)
17	A:294:GLU:HA	A:297:VAL:HG12	0.483
17	A:206:LEU:C	A:206:LEU:HD12	0.467
17	A:456:GLN:HE22	A:508:GLU:HG2	0.460
17	A:39:VAL:HG22	A:40:VAL:N	0.456
17	A:356:LEU:C	A:356:LEU:HD13	0.444
17	A:39:VAL:HG22	A:40:VAL:H	0.433
17	A:287:GLN:NE2	A:372:SER:H	0.432
17	A:434:ARG:HA	A:437:VAL:HG12	0.426
17	A:321:GLN:CD	A:321:GLN:H	0.422
17	A:221:LEU:O	A:225:CYS:HB2	0.406
17	A:46:LEU:H	A:46:LEU:HG	0.405
18	A:224:LEU:C	A:224:LEU:HD13	0.540
18	A:79:TRP:HA	A:80:MET:HB3	0.449
18	A:24:ASN:HA	A:25:PRO:HD3	0.435
18	A:93:LEU:N	A:93:LEU:HD12	0.435
18	A:416:SER:HB3	A:417:PRO:HD3	0.412
19	A:38:MET:HE1	A:293:LEU:HD22	0.763
19	A:114:TRP:CZ2	A:304:ILE:HG21	0.612
19	A:426:ILE:O	A:426:ILE:HG23	0.539
19	A:350:LEU:C	A:350:LEU:HD13	0.536
19	A:182:LEU:HB3	A:185:PHE:CD1	0.517
19	A:38:MET:HE3	A:94:VAL:HG11	0.514
19	A:296:LEU:HD12	A:315:ALA:HB1	0.493

Model ID	Atom-1	Atom-2	Clash overlap (Å)
19	A:21:LEU:HD22	A:114:TRP:CE2	0.492
19	A:234:LYS:HE2	A:272:TYR:CD2	0.478
19	A:407:CYS:SG	A:460:ILE:HG21	0.473
19	A:38:MET:HE3	A:94:VAL:CG1	0.467
19	A:182:LEU:HD23	A:185:PHE:CG	0.467
19	A:40:VAL:HG23	A:94:VAL:HG22	0.463
19	A:59:ALA:CB	A:81:TRP:HE1	0.462
19	A:114:TRP:CE2	A:304:ILE:HG21	0.447
19	A:155:LYS:HE2	A:377:ASP:OD2	0.445
19	A:44:VAL:HG12	A:126:PHE:CE2	0.441
19	A:236:PHE:CZ	A:238:PHE:CG	0.433
19	A:178:PHE:HB3	A:230:PHE:CD1	0.429
19	A:321:GLN:O	A:325:SER:HB3	0.429
19	A:34:ILE:HG23	A:290:GLY:CA	0.428
19	A:55:MET:HA	A:95:LEU:HD21	0.423
19	A:79:TRP:O	A:96:LEU:HA	0.420
19	A:419:GLU:O	A:422:VAL:HG12	0.417
19	A:14:ILE:HB	A:21:LEU:HD21	0.416
19	A:400:GLN:HB2	A:400:GLN:HE21	0.416
19	A:61:LYS:HE3	A:63:LYS:O	0.415
19	A:260:PRO:HA	A:263:VAL:HG12	0.415
19	A:367:VAL:O	A:371:SER:HB2	0.409
19	A:345:LEU:HA	A:346:PRO:HA	0.407

Model ID	Atom-1	Atom-2	Clash overlap (Å)
19	A:61:LYS:HE3	A:62:LYS:O	0.405
20	A:353:LEU:HD11	A:395:PHE:CE2	0.681
20	A:38:MET:HE1	A:293:LEU:HD22	0.656
20	A:80:MET:HE3	A:293:LEU:CD2	0.604
20	A:288:VAL:HG23	A:292:ARG:HD3	0.586
20	A:476:LEU:HD12	A:482:LEU:HD11	0.586
20	A:353:LEU:HD11	A:395:PHE:CD2	0.580
20	A:14:ILE:HG22	A:23:ALA:HA	0.570
20	A:21:LEU:HD23	A:114:TRP:CD1	0.540
20	A:196:LEU:HD11	A:200:GLU:HB3	0.521
20	A:55:MET:HA	A:95:LEU:HD21	0.483
20	A:185:PHE:CD1	A:237:VAL:HG23	0.477
20	A:38:MET:HE2	A:288:VAL:CG1	0.475
20	A:234:LYS:HE2	A:272:TYR:CE1	0.475
20	A:206:LEU:HD21	A:226:ILE:HG23	0.473
20	A:292:ARG:HG2	A:319:LEU:HD22	0.466
20	A:371:SER:HB3	A:380:PHE:CZ	0.462
20	A:472:THR:O	A:490:GLU:HG3	0.455
20	A:101:LEU:HD21	A:144:TYR:CD2	0.450
20	A:80:MET:HE2	A:94:VAL:HG21	0.447
20	A:38:MET:HE3	A:40:VAL:HB	0.446
20	A:313:GLU:HA	A:316:VAL:HG12	0.446
20	A:295:SER:OG	A:319:LEU:HD13	0.444

Model ID	Atom-1	Atom-2	Clash overlap (Å)
20	A:234:LYS:HE2	A:272:TYR:CD1	0.437
20	A:422:VAL:HG11	A:471:MET:HE1	0.436
20	A:80:MET:HE3	A:293:LEU:HD21	0.433
20	A:40:VAL:HB	A:94:VAL:CG1	0.429
20	A:44:VAL:HG22	A:45:GLY:H	0.426
20	A:206:LEU:HD23	A:227:ARG:HD3	0.422
20	A:174:PHE:CD1	A:312:MET:SD	0.421
20	A:208:LEU:HG	A:223:ARG:HD2	0.416
20	A:42:ALA:CB	A:96:LEU:HD22	0.415
20	A:134:ILE:O	A:134:ILE:HG23	0.413
20	A:234:LYS:HD3	A:272:TYR:CZ	0.413
20	A:236:PHE:C	A:236:PHE:CD2	0.408
20	A:148:LEU:HD21	A:171:PHE:CZ	0.407
20	A:528:LEU:C	A:528:LEU:HD13	0.407
20	A:14:ILE:HD11	A:78:ILE:HB	0.403
20	A:414:ILE:C	A:416:SER:H	0.403
21	A:55:MET:HE3	A:97:ASP:HB2	0.626
21	A:11:MET:HG3	A:12:CYS:H	0.600
21	A:234:LYS:HE3	A:272:TYR:CE2	0.590
21	A:282:LEU:HD13	A:292:ARG:NH2	0.562
21	A:120:VAL:HG13	A:121:LEU:HD12	0.558
21	A:230:PHE:CD2	A:231:PRO:HD2	0.524
21	A:174:PHE:CG	A:174:PHE:O	0.511

Model ID	Atom-1	Atom-2	Clash overlap (Å)
21	A:152:ILE:HG21	A:171:PHE:CE1	0.502
21	A:384:LEU:C	A:384:LEU:HD13	0.495
21	A:55:MET:HG2	A:95:LEU:HD21	0.490
21	A:175:PHE:CD2	A:176:PRO:HD2	0.486
21	A:47:TYR:CD2	A:48:ARG:N	0.472
21	A:282:LEU:HD23	A:283:SER:H	0.470
21	A:317:LEU:HA	A:320:ALA:HB3	0.468
21	A:286:ILE:CD1	A:319:LEU:HD23	0.463
21	A:295:SER:HB3	A:318:ALA:HB1	0.459
21	A:36:GLN:HB3	A:37:PRO:HD2	0.456
21	A:177:ASP:HA	A:230:PHE:CE2	0.456
21	A:324:ASN:HA	A:327:ALA:HB3	0.453
21	A:126:PHE:CD1	A:178:PHE:CD2	0.448
21	A:11:MET:HE3	A:27:ALA:HA	0.445
21	A:254:GLN:HG2	A:255:ASP:H	0.431
21	A:447:TYR:CD1	A:461:LEU:HD12	0.431
21	A:415:PHE:CG	A:443:LEU:HD11	0.424
21	A:46:LEU:O	A:49:THR:HG23	0.423
21	A:13:LEU:HD23	A:80:MET:HG2	0.421
21	A:328:VAL:HG13	A:387:GLN:NE2	0.419
21	A:177:ASP:HA	A:230:PHE:CZ	0.418
21	A:152:ILE:HD13	A:171:PHE:CZ	0.416
21	A:154:SER:H	A:167:ASP:CG	0.415

Model ID	Atom-1	Atom-2	Clash overlap (Å)
21	A:292:ARG:CG	A:319:LEU:HD22	0.414
21	A:448:TYR:CZ	A:457:ALA:HB3	0.413
21	A:335:TYR:CD2	A:391:LYS:HE3	0.409
21	A:126:PHE:HD1	A:178:PHE:CD2	0.408
21	A:416:SER:HB3	A:417:PRO:HD3	0.404
22	A:353:LEU:HD11	A:395:PHE:CZ	0.888
22	A:14:ILE:HD13	A:21:LEU:HD21	0.671
22	A:425:GLY:HA2	A:478:THR:HG23	0.632
22	A:44:VAL:HG22	A:45:GLY:H	0.563
22	A:122:LEU:HD12	A:296:LEU:HD22	0.555
22	A:21:LEU:C	A:21:LEU:HD23	0.535
22	A:122:LEU:CD1	A:296:LEU:HD22	0.525
22	A:232:LYS:O	A:234:LYS:HE2	0.517
22	A:353:LEU:HD11	A:395:PHE:CE1	0.515
22	A:292:ARG:HA	A:319:LEU:HD22	0.514
22	A:221:LEU:N	A:222:PRO:HD2	0.503
22	A:425:GLY:CA	A:478:THR:HG23	0.499
22	A:114:TRP:CZ2	A:304:ILE:HG21	0.491
22	A:425:GLY:C	A:478:THR:HG23	0.489
22	A:13:LEU:HD23	A:80:MET:HB3	0.487
22	A:171:PHE:CE2	A:229:PHE:CE1	0.481
22	A:178:PHE:HB3	A:230:PHE:CD1	0.467
22	A:425:GLY:HA2	A:478:THR:CG2	0.464

Model ID	Atom-1	Atom-2	Clash overlap (Å)
22	A:58:LEU:HD23	A:95:LEU:HD13	0.463
22	A:14:ILE:HA	A:22:MET:O	0.454
22	A:87:LYS:HB2	A:274:PHE:CE2	0.443
22	A:149:THR:HG22	A:168:SER:HB2	0.443
22	A:40:VAL:HB	A:94:VAL:HG13	0.440
22	A:38:MET:HE1	A:293:LEU:HD22	0.439
22	A:413:VAL:CG1	A:505:MET:HG3	0.439
22	A:55:MET:HE2	A:95:LEU:HG	0.436
22	A:31:LEU:HA	A:31:LEU:HD12	0.434
22	A:171:PHE:CZ	A:229:PHE:CE1	0.430
22	A:487:LYS:O	A:491:VAL:HG13	0.419
22	A:26:GLU:O	A:29:LYS:HB3	0.411
22	A:45:GLY:HA2	A:128:TYR:CE2	0.410
23	A:58:LEU:HD21	A:83:VAL:HG11	0.547
23	A:22:MET:HE3	A:301:VAL:HG13	0.537
23	A:447:TYR:O	A:453:LYS:HE2	0.526
23	A:79:TRP:CZ3	A:80:MET:HE2	0.486
23	A:38:MET:H	A:288:VAL:CG1	0.466
23	A:78:ILE:HD13	A:78:ILE:HG21	0.427
23	A:570:ARG:HA	A:573:LYS:HE3	0.426
23	A:320:ALA:HA	A:373:PHE:HB3	0.412
23	A:441:GLN:C	A:445:LYS:HE2	0.412
23	A:569:SER:O	A:573:LYS:HE2	0.409

Model ID	Atom-1	Atom-2	Clash overlap (Å)
23	A:335:TYR:CE2	A:360:SER:HB3	0.408
23	A:489:ILE:HD13	A:489:ILE:HG21	0.405
24	A:185:PHE:CD1	A:237:VAL:HG23	0.644
24	A:87:LYS:HA	A:87:LYS:HE3	0.618
24	A:280:LYS:HD2	A:288:VAL:HG21	0.557
24	A:234:LYS:HE3	A:272:TYR:CE2	0.532
24	A:230:PHE:CD2	A:231:PRO:HD2	0.524
24	A:447:TYR:CE1	A:461:LEU:HD13	0.512
24	A:11:MET:HB3	A:79:TRP:CH2	0.494
24	A:353:LEU:HD22	A:399:ASN:ND2	0.480
24	A:42:ALA:HB2	A:96:LEU:HD23	0.477
24	A:343:VAL:CG2	A:395:PHE:CE2	0.474
24	A:114:TRP:CZ2	A:304:ILE:HG21	0.472
24	A:38:MET:SD	A:94:VAL:HG11	0.443
24	A:174:PHE:CD1	A:175:PHE:HA	0.443
24	A:411:LEU:HD12	A:464:TYR:CD1	0.442
24	A:182:LEU:HD22	A:185:PHE:CD1	0.441
24	A:407:CYS:SG	A:453:LYS:HA	0.440
24	A:288:VAL:HG22	A:292:ARG:HD3	0.435
24	A:309:LEU:HA	A:310:PRO:HD3	0.424
24	A:80:MET:HE3	A:94:VAL:HG21	0.420
24	A:116:PHE:CE2	A:126:PHE:CZ	0.414
24	A:116:PHE:HB3	A:144:TYR:CZ	0.414

Model ID	Atom-1	Atom-2	Clash overlap (Å)
24	A:230:PHE:CE1	A:232:LYS:HB2	0.414
24	A:120:VAL:HG11	A:148:LEU:HD21	0.413
24	A:13:LEU:HD22	A:27:ALA:HB1	0.410
24	A:38:MET:HE1	A:293:LEU:HD22	0.405
24	A:226:ILE:HD11	A:233:LYS:NZ	0.404
24	A:288:VAL:HG22	A:292:ARG:CD	0.403
25	A:28:LEU:HD12	A:31:LEU:HD12	0.558
25	A:416:SER:HB3	A:417:PRO:HD3	0.498
25	A:28:LEU:HD12	A:31:LEU:CD1	0.481
25	A:226:ILE:HD12	A:229:PHE:CZ	0.464
25	A:436:PHE:CD1	A:472:THR:HG22	0.456
25	A:301:VAL:HA	A:304:ILE:HG22	0.447
25	A:259:ASP:HA	A:260:PRO:HD3	0.444
25	A:178:PHE:HB3	A:230:PHE:CD1	0.442
25	A:182:LEU:HD21	A:185:PHE:CE2	0.437
25	A:366:GLU:CD	A:370:ARG:HH12	0.432
25	A:418:LEU:O	A:468:LYS:HE2	0.427
25	A:209:LYS:HG2	A:216:ASP:HB3	0.417
25	A:447:TYR:CE1	A:453:LYS:HE3	0.412
25	A:87:LYS:HA	A:87:LYS:HE3	0.411
25	A:447:TYR:CD1	A:453:LYS:HE3	0.403
25	A:139:MET:HE2	A:219:PHE:CD2	0.402
25	A:415:PHE:CE1	A:464:TYR:CD1	0.402

Model ID	Atom-1	Atom-2	Clash overlap (Å)
26	A:528:LEU:C	A:528:LEU:HD13	0.522
26	A:175:PHE:CD1	A:176:PRO:HD2	0.503
26	A:5:ILE:HG23	A:6:HIS:H	0.464
26	A:342:LYS:HE3	A:356:LEU:CD2	0.461
26	A:180:TRP:CG	A:233:LYS:HE3	0.453
26	A:327:ALA:HB1	A:367:VAL:HG22	0.445
26	A:455:ILE:C	A:457:ALA:H	0.441
26	A:342:LYS:HE3	A:356:LEU:HD22	0.423
26	A:255:ASP:HA	A:258:LEU:HD13	0.418
26	A:468:LYS:HA	A:468:LYS:HD3	0.416
26	A:197:THR:HA	A:198:PRO:HD3	0.412
26	A:221:LEU:HB3	A:222:PRO:HD3	0.410
26	A:332:ILE:HG21	A:530:GLN:HE22	0.409
26	A:476:LEU:HD22	A:481:THR:HB	0.403
27	A:414:ILE:H	A:414:ILE:HD12	0.727
27	A:356:LEU:C	A:356:LEU:HD13	0.626
27	A:414:ILE:N	A:414:ILE:HD12	0.616
27	A:414:ILE:CD1	A:414:ILE:H	0.533
27	A:368:PHE:CD1	A:384:LEU:HD22	0.509
27	A:482:LEU:H	A:482:LEU:HD23	0.483
27	A:262:PHE:C	A:262:PHE:CD1	0.480
27	A:250:LEU:H	A:250:LEU:HD23	0.471
27	A:46:LEU:H	A:46:LEU:HD23	0.442

Model ID	Atom-1	Atom-2	Clash overlap (Å)
27	A:258:LEU:HD23	A:263:VAL:CG2	0.430
27	A:434:ARG:HH21	A:486:GLU:CD	0.419
27	A:461:LEU:HD21	A:504:LYS:HE3	0.406
28	A:114:TRP:CD1	A:300:TYR:HH	0.643
28	A:53:TYR:CZ	A:57:LYS:HE2	0.512
28	A:136:GLN:HA	A:139:MET:HE2	0.469
28	A:40:VAL:HA	A:94:VAL:O	0.450
28	A:345:LEU:HD11	A:395:PHE:CE2	0.441
28	A:380:PHE:C	A:380:PHE:CD1	0.428
28	A:350:LEU:O	A:350:LEU:HD13	0.427
28	A:560:LEU:HD21	A:570:ARG:NH2	0.425
28	A:101:LEU:H	A:101:LEU:HD13	0.418
28	A:10:PRO:HG2	A:65:PHE:HA	0.414
28	A:246:LYS:NZ	A:257:GLU:OE1	0.410
28	A:482:LEU:H	A:482:LEU:HD23	0.408
28	A:443:LEU:C	A:443:LEU:HD23	0.406
28	A:482:LEU:N	A:482:LEU:HD23	0.401
29	A:121:LEU:C	A:121:LEU:HD13	0.599
29	A:354:LEU:C	A:354:LEU:HD13	0.496
29	A:338:GLN:HA	A:338:GLN:OE1	0.454
29	A:566:GLN:CD	A:566:GLN:H	0.450
29	A:85:HIS:CE1	A:87:LYS:H	0.447
29	A:465:LEU:HA	A:465:LEU:HD23	0.424

Model ID	Atom-1	Atom-2	Clash overlap (Å)
29	A:39:VAL:HG11	A:85:HIS:CD2	0.416
29	A:80:MET:H	A:96:LEU:HD23	0.414
29	A:180:TRP:CZ2	A:235:CYS:HB2	0.404
30	A:238:PHE:CE2	A:262:PHE:CE2	0.563
30	A:81:TRP:C	A:94:VAL:HG23	0.562
30	A:98:THR:CG2	A:115:ILE:HG23	0.542
30	A:177:ASP:HA	A:230:PHE:CE2	0.509
30	A:80:MET:SD	A:94:VAL:HG21	0.473
30	A:98:THR:HG22	A:115:ILE:HG23	0.466
30	A:289:ASN:H	A:292:ARG:HB2	0.423
30	A:183:ARG:HB3	A:183:ARG:HH11	0.416
30	A:126:PHE:CE1	A:178:PHE:CZ	0.414
30	A:353:LEU:HD22	A:399:ASN:CB	0.414
30	A:24:ASN:HA	A:25:PRO:HD3	0.413
30	A:80:MET:H	A:96:LEU:HA	0.407
30	A:44:VAL:HG22	A:45:GLY:H	0.406
30	A:30:ILE:HA	A:30:ILE:HD13	0.405
30	A:98:THR:HG21	A:115:ILE:HG23	0.405
30	A:407:CYS:HB2	A:460:ILE:HG21	0.405
30	A:300:TYR:CE2	A:310:PRO:HG3	0.404
30	A:238:PHE:CE2	A:262:PHE:CZ	0.401
30	A:418:LEU:HA	A:418:LEU:HD13	0.400
31	A:66:SER:HB3	A:74:HIS:CE1	0.554

Model ID	Atom-1	Atom-2	Clash overlap (Å)
31	A:52:SER:HB3	A:65:PHE:CG	0.534
31	A:351:GLN:CD	A:351:GLN:H	0.486
31	A:240:ARG:N	A:241:PRO:HD2	0.466
31	A:427:TYR:CZ	A:436:PHE:CE2	0.459
31	A:252:LYS:HA	A:252:LYS:HE3	0.441
31	A:316:VAL:HG21	A:373:PHE:CZ	0.434
31	A:356:LEU:C	A:356:LEU:HD13	0.430
31	A:467:SER:O	A:468:LYS:HE3	0.421
31	A:194:GLN:HA	A:195:PRO:HD3	0.419
31	A:368:PHE:CD2	A:384:LEU:HD22	0.416
31	A:316:VAL:HG21	A:373:PHE:CE1	0.407
31	A:356:LEU:C	A:356:LEU:CD1	0.405
31	A:66:SER:CB	A:74:HIS:CE1	0.401
32	A:343:VAL:HG11	A:395:PHE:CE2	0.536
32	A:343:VAL:HG11	A:395:PHE:HE2	0.523
32	A:356:LEU:C	A:356:LEU:HD13	0.519
32	A:126:PHE:CZ	A:178:PHE:CD1	0.512
32	A:65:PHE:CD1	A:65:PHE:N	0.445
32	A:361:GLU:CD	A:392:ARG:HH12	0.438
32	A:416:SER:N	A:417:PRO:CD	0.434
32	A:242:VAL:HG21	A:250:LEU:HD22	0.417
32	A:126:PHE:CZ	A:178:PHE:CE1	0.416
32	A:483:THR:HG23	A:486:GLU:H	0.410

Model ID	Atom-1	Atom-2	Clash overlap (Å)
32	A:373:PHE:CG	A:373:PHE:O	0.406
32	A:146:THR:C	A:148:LEU:H	0.405
32	A:419:GLU:HA	A:422:VAL:HG12	0.404
32	A:83:VAL:HA	A:84:PRO:HD3	0.401
33	A:7:MET:HG3	A:81:TRP:CH2	0.626
33	A:573:LYS:HA	A:573:LYS:HE3	0.571
33	A:180:TRP:CD1	A:181:THR:H	0.496
33	A:224:LEU:HD11	A:228:LYS:HE3	0.496
33	A:552:LEU:C	A:552:LEU:HD13	0.461
33	A:224:LEU:C	A:224:LEU:HD13	0.443
33	A:230:PHE:CD2	A:231:PRO:HD2	0.436
33	A:161:ASN:C	A:163:ASN:H	0.413
33	A:481:THR:O	A:481:THR:HG22	0.410
33	A:85:HIS:HA	A:86:PRO:HD3	0.401
34	A:327:ALA:HB1	A:372:SER:H	0.607
34	A:51:LYS:HE2	A:97:ASP:OD1	0.542
34	A:404:SER:HB2	A:460:ILE:HD11	0.512
34	A:164:GLU:C	A:166:GLU:H	0.472
34	A:256:GLU:CD	A:256:GLU:H	0.472
34	A:327:ALA:HB1	A:371:SER:HA	0.421
34	A:95:LEU:C	A:95:LEU:HD13	0.418
34	A:345:LEU:H	A:345:LEU:HD23	0.405
34	A:427:TYR:CE2	A:430:PRO:HA	0.404

Model ID	Atom-1	Atom-2	Clash overlap (Å)
34	A:317:LEU:HA	A:317:LEU:HD22	0.403
35	A:379:LEU:C	A:379:LEU:HD13	0.584
35	A:14:ILE:HD11	A:77:GLY:CA	0.549
35	A:127:VAL:HG23	A:179:VAL:HG13	0.519
35	A:230:PHE:CG	A:231:PRO:HD2	0.500
35	A:230:PHE:CD2	A:231:PRO:HD2	0.500
35	A:14:ILE:HD11	A:77:GLY:HA2	0.485
35	A:44:VAL:HG21	A:126:PHE:CZ	0.424
35	A:175:PHE:CG	A:176:PRO:HD2	0.405
35	A:181:THR:HG22	A:236:PHE:HB3	0.405
35	A:567:LYS:O	A:570:ARG:HB2	0.403
36	A:234:LYS:HE3	A:272:TYR:CZ	0.554
36	A:335:TYR:CD1	A:360:SER:HB3	0.487
36	A:44:VAL:HG21	A:126:PHE:CZ	0.451
36	A:118:LEU:HD13	A:300:TYR:CD1	0.429
36	A:458:GLU:CD	A:458:GLU:H	0.427
36	A:180:TRP:CD1	A:202:LEU:HD23	0.425
36	A:324:ASN:ND2	A:380:PHE:CZ	0.407
37	A:38:MET:SD	A:293:LEU:HD13	0.582
37	A:122:LEU:HD12	A:296:LEU:HD23	0.517
37	A:126:PHE:CZ	A:178:PHE:CD2	0.517
37	A:233:LYS:HA	A:233:LYS:HE3	0.505
37	A:36:GLN:HA	A:37:PRO:HD2	0.457

Model ID	Atom-1	Atom-2	Clash overlap (Å)
37	A:312:MET:HE1	A:374:LYS:HE3	0.451
37	A:121:LEU:HD13	A:152:ILE:CD1	0.437
37	A:520:LYS:HE3	A:524:TYR:HB2	0.437
37	A:373:PHE:CE2	A:374:LYS:HE2	0.409
37	A:179:VAL:HG22	A:180:TRP:H	0.405
38	A:560:LEU:C	A:560:LEU:HD12	0.491
38	A:4:GLU:HG2	A:6:HIS:CE1	0.467
38	A:393:ASP:O	A:397:LYS:HE3	0.458
38	A:415:PHE:C	A:417:PRO:HD2	0.455
38	A:4:GLU:CG	A:6:HIS:CE1	0.449
38	A:531:LEU:C	A:531:LEU:HD13	0.447
38	A:66:SER:H	A:74:HIS:HD1	0.437
38	A:471:MET:HA	A:474:ALA:HB3	0.431
38	A:116:PHE:O	A:119:ALA:HB3	0.430
38	A:368:PHE:CE2	A:381:GLN:HB2	0.419
38	A:95:LEU:C	A:95:LEU:HD13	0.413
39	A:282:LEU:N	A:282:LEU:HD22	0.500
39	A:65:PHE:CE2	A:75:THR:HA	0.467
39	A:11:MET:HA	A:11:MET:HE2	0.442
39	A:52:SER:HB3	A:67:LEU:HD13	0.436
39	A:154:SER:H	A:167:ASP:CG	0.425
39	A:453:LYS:HE3	A:457:ALA:HB1	0.425
39	A:221:LEU:HB3	A:222:PRO:HD3	0.415

Model ID	Atom-1	Atom-2	Clash overlap (Å)
39	A:45:GLY:O	A:51:LYS:HE2	0.409
40	A:45:GLY:O	A:51:LYS:HE2	0.598
40	A:79:TRP:HA	A:80:MET:HB3	0.516
40	A:79:TRP:HA	A:80:MET:CB	0.514
40	A:230:PHE:CD2	A:231:PRO:HD2	0.490
40	A:565:PHE:CZ	A:567:LYS:HB3	0.468
40	A:197:THR:HB	A:198:PRO:CD	0.457
40	A:292:ARG:C	A:292:ARG:HD3	0.455
40	A:339:MET:HE1	A:356:LEU:CD1	0.455
40	A:482:LEU:HD12	A:483:THR:N	0.431
40	A:58:LEU:HD13	A:270:CYS:SG	0.428
40	A:61:LYS:HE2	A:81:TRP:CE2	0.426
40	A:450:GLU:HA	A:451:PRO:HD3	0.406
41	A:38:MET:HE2	A:293:LEU:HD21	0.789
41	A:7:MET:HE2	A:61:LYS:HE3	0.717
41	A:80:MET:HB2	A:96:LEU:HD12	0.572
41	A:234:LYS:HE2	A:272:TYR:CD2	0.567
41	A:238:PHE:CD2	A:262:PHE:CD2	0.525
41	A:484:GLU:CD	A:484:GLU:H	0.503
41	A:230:PHE:CD2	A:231:PRO:HD2	0.502
41	A:78:ILE:HG23	A:96:LEU:HD11	0.496
41	A:40:VAL:HA	A:94:VAL:HG12	0.474
41	A:292:ARG:NE	A:319:LEU:HD21	0.467

Model ID	Atom-1	Atom-2	Clash overlap (Å)
41	A:38:MET:HE1	A:94:VAL:HG11	0.466
41	A:342:LYS:HD3	A:356:LEU:HD11	0.466
41	A:62:LYS:HE3	A:62:LYS:N	0.450
41	A:238:PHE:CE2	A:262:PHE:CD2	0.448
41	A:267:ALA:HA	A:270:CYS:SG	0.448
41	A:38:MET:HG2	A:92:ILE:HG23	0.440
41	A:335:TYR:CZ	A:360:SER:HB3	0.439
41	A:42:ALA:HB3	A:123:SER:HB2	0.436
41	A:180:TRP:CE2	A:202:LEU:HD11	0.431
41	A:55:MET:HE3	A:97:ASP:HB2	0.424
41	A:114:TRP:CH2	A:300:TYR:CD2	0.421
41	A:101:LEU:HD11	A:144:TYR:CZ	0.418
41	A:58:LEU:HB3	A:95:LEU:HD22	0.414
41	A:208:LEU:HB3	A:210:LYS:HE3	0.413
41	A:127:VAL:HG23	A:181:THR:HG23	0.412
41	A:5:ILE:HG13	A:7:MET:HE3	0.409
41	A:38:MET:HB3	A:38:MET:HE3	0.409
42	A:359:ASP:HB3	A:363:GLU:HG2	0.480
42	A:209:LYS:HE3	A:219:PHE:CD2	0.477
42	A:121:LEU:HD23	A:174:PHE:CD2	0.472
42	A:197:THR:H	A:200:GLU:HB2	0.455
42	A:197:THR:HB	A:198:PRO:CD	0.439
42	A:395:PHE:C	A:395:PHE:CD1	0.435

Model ID	Atom-1	Atom-2	Clash overlap (Å)
42	A:209:LYS:HE3	A:219:PHE:CE2	0.433
42	A:298:LEU:C	A:298:LEU:HD23	0.425
42	A:414:ILE:HD13	A:414:ILE:HG21	0.421
42	A:208:LEU:HD13	A:563:GLU:HG2	0.412
43	A:327:ALA:HB1	A:372:SER:H	0.539
43	A:444:LYS:HG3	A:465:LEU:HD11	0.509
43	A:571:ILE:H	A:571:ILE:HD12	0.508
43	A:88:LYS:HD3	A:91:HIS:CD2	0.479
43	A:201:TYR:CE2	A:205:SER:HB3	0.471
43	A:299:THR:HG21	A:318:ALA:HB3	0.448
43	A:76:LYS:HB3	A:76:LYS:HE3	0.442
43	A:327:ALA:CB	A:372:SER:H	0.442
43	A:565:PHE:CZ	A:568:GLU:HB2	0.441
43	A:493:ARG:HA	A:493:ARG:HD2	0.422
43	A:180:TRP:HE1	A:182:LEU:HD21	0.411
43	A:66:SER:H	A:74:HIS:CE1	0.411
43	A:521:GLU:CD	A:522:ARG:HE	0.410
44	A:282:LEU:HD12	A:283:SER:H	0.736
44	A:34:ILE:HD11	A:92:ILE:HD13	0.618
44	A:220:ASN:C	A:220:ASN:HD22	0.556
44	A:238:PHE:CD2	A:262:PHE:CE2	0.518
44	A:55:MET:HA	A:95:LEU:HD21	0.511
44	A:11:MET:HB3	A:79:TRP:CZ3	0.508

Model ID	Atom-1	Atom-2	Clash overlap (Å)
44	A:11:MET:HB3	A:79:TRP:CH2	0.497
44	A:238:PHE:CE2	A:262:PHE:CZ	0.495
44	A:87:LYS:HB2	A:274:PHE:CE2	0.487
44	A:182:LEU:HD22	A:185:PHE:CD1	0.485
44	A:289:ASN:O	A:293:LEU:HD22	0.481
44	A:238:PHE:CE2	A:262:PHE:CE2	0.476
44	A:282:LEU:HD12	A:283:SER:N	0.461
44	A:38:MET:HE1	A:293:LEU:HD21	0.451
44	A:220:ASN:C	A:220:ASN:ND2	0.451
44	A:569:SER:O	A:572:MET:HE2	0.446
44	A:206:LEU:CD1	A:223:ARG:HB2	0.438
44	A:11:MET:HG3	A:27:ALA:HB2	0.437
44	A:175:PHE:CZ	A:229:PHE:CE2	0.418
44	A:299:THR:HG21	A:318:ALA:HB3	0.410
44	A:435:LEU:O	A:435:LEU:HD23	0.404
45	A:180:TRP:CD1	A:235:CYS:HG	0.663
45	A:67:LEU:H	A:67:LEU:HD22	0.632
45	A:217:GLU:CD	A:567:LYS:HZ1	0.552
45	A:187:LEU:N	A:187:LEU:HD12	0.506
45	A:411:LEU:HA	A:415:PHE:HB3	0.504
45	A:154:SER:HB3	A:174:PHE:CG	0.493
45	A:221:LEU:HB3	A:222:PRO:HD3	0.465
45	A:197:THR:HB	A:198:PRO:CD	0.447

Model ID	Atom-1	Atom-2	Clash overlap (Å)
45	A:204:TYR:CE2	A:207:LYS:HE3	0.446
45	A:464:TYR:CE1	A:468:LYS:HE3	0.430
45	A:196:LEU:N	A:196:LEU:HD12	0.410
45	A:17:THR:HG21	A:22:MET:HE2	0.409
45	A:175:PHE:HA	A:176:PRO:HD3	0.409
45	A:416:SER:HB3	A:417:PRO:HD3	0.409
45	A:43:ILE:HD11	A:129:ASN:HD21	0.407
46	A:178:PHE:CE1	A:233:LYS:HE2	0.609
46	A:114:TRP:CZ3	A:300:TYR:CE1	0.522
46	A:96:LEU:C	A:96:LEU:HD23	0.510
46	A:175:PHE:CG	A:176:PRO:HD2	0.497
46	A:178:PHE:CZ	A:233:LYS:HE2	0.457
46	A:143:TYR:C	A:143:TYR:CD2	0.456
46	A:356:LEU:C	A:356:LEU:HD23	0.435
46	A:190:GLU:CD	A:190:GLU:H	0.434
46	A:368:PHE:C	A:368:PHE:CD2	0.403
46	A:528:LEU:C	A:528:LEU:HD13	0.402
47	A:174:PHE:CZ	A:280:LYS:HE2	0.508
47	A:391:LYS:HA	A:391:LYS:HE3	0.489
47	A:45:GLY:O	A:51:LYS:HE3	0.478
47	A:384:LEU:C	A:384:LEU:HD13	0.455
47	A:14:ILE:HG22	A:23:ALA:HA	0.442
47	A:233:LYS:HA	A:233:LYS:HE3	0.442

Model ID	Atom-1	Atom-2	Clash overlap (Å)
47	A:379:LEU:C	A:379:LEU:HD23	0.438
47	A:174:PHE:CE2	A:280:LYS:HE2	0.434
47	A:58:LEU:HD12	A:270:CYS:HB2	0.404
47	A:164:GLU:HG3	A:165:VAL:N	0.402
48	A:135:ASN:CG	A:136:GLN:H	0.657
48	A:458:GLU:CD	A:458:GLU:H	0.514
48	A:335:TYR:HB3	A:391:LYS:HE2	0.488
48	A:22:MET:HG3	A:23:ALA:H	0.487
48	A:22:MET:HG3	A:23:ALA:N	0.472
48	A:233:LYS:HA	A:233:LYS:HE3	0.451
48	A:426:ILE:HG22	A:427:TYR:CD1	0.445
48	A:269:PHE:O	A:273:ILE:HG22	0.430
48	A:118:LEU:O	A:118:LEU:HD23	0.423
48	A:324:ASN:ND2	A:380:PHE:CE1	0.402
49	A:457:ALA:HA	A:460:ILE:HG22	0.544
49	A:456:GLN:HG3	A:456:GLN:O	0.434
49	A:419:GLU:HB3	A:423:LYS:HE2	0.414
49	A:457:ALA:HA	A:460:ILE:CG2	0.412
49	A:403:SER:CB	A:455:ILE:HD12	0.410
49	A:279:THR:HB	A:287:GLN:HE22	0.403
50	A:14:ILE:HD13	A:21:LEU:HD21	0.831
50	A:152:ILE:HG21	A:171:PHE:HE1	0.703
50	A:152:ILE:HG21	A:171:PHE:CE1	0.672

Model ID	Atom-1	Atom-2	Clash overlap (Å)
50	A:44:VAL:HG22	A:45:GLY:H	0.657
50	A:40:VAL:HB	A:94:VAL:HG12	0.580
50	A:357:HIS:C	A:357:HIS:CD2	0.555
50	A:286:ILE:HD12	A:374:LYS:HB3	0.552
50	A:20:ARG:HE	A:22:MET:HE2	0.543
50	A:114:TRP:CZ2	A:304:ILE:HG21	0.540
50	A:436:PHE:CZ	A:471:MET:HE2	0.514
50	A:512:LYS:HA	A:512:LYS:HE2	0.499
50	A:282:LEU:O	A:286:ILE:HG22	0.498
50	A:78:ILE:HG13	A:98:THR:HG22	0.489
50	A:14:ILE:HD11	A:78:ILE:HB	0.486
50	A:11:MET:HB3	A:79:TRP:CH2	0.481
50	A:122:LEU:CD1	A:296:LEU:HD22	0.462
50	A:234:LYS:HE2	A:272:TYR:CG	0.457
50	A:222:PRO:O	A:226:ILE:HG22	0.456
50	A:427:TYR:CD2	A:432:GLY:HA3	0.454
50	A:14:ILE:O	A:14:ILE:HD12	0.452
50	A:230:PHE:CD2	A:231:PRO:HD2	0.450
50	A:234:LYS:HE2	A:272:TYR:CD2	0.447
50	A:436:PHE:CE2	A:471:MET:HE2	0.446
50	A:39:VAL:HB	A:279:THR:HA	0.444
50	A:464:TYR:OH	A:468:LYS:HE3	0.442
50	A:13:LEU:HD23	A:80:MET:HB3	0.440

Model ID	Atom-1	Atom-2	Clash overlap (Å)
50	A:42:ALA:HB2	A:123:SER:HB2	0.426
50	A:531:LEU:HA	A:531:LEU:HD22	0.418
50	A:565:PHE:CE1	A:568:GLU:HB2	0.416
50	A:280:LYS:HE2	A:282:LEU:HD22	0.415
50	A:309:LEU:HA	A:310:PRO:HD3	0.409
50	A:434:ARG:HA	A:437:VAL:HG12	0.407
50	A:471:MET:HA	A:474:ALA:HB3	0.404
50	A:59:ALA:CB	A:81:TRP:HE1	0.400
51	A:184:ASP:HA	A:239:ASP:HA	0.492
51	A:80:MET:HG3	A:94:VAL:CG2	0.489
51	A:484:GLU:CD	A:484:GLU:H	0.482
51	A:114:TRP:CH2	A:118:LEU:HD22	0.463
51	A:484:GLU:CD	A:484:GLU:N	0.453
51	A:411:LEU:C	A:411:LEU:HD13	0.431
51	A:450:GLU:HA	A:451:PRO:HD3	0.430
51	A:416:SER:N	A:417:PRO:HD2	0.418
51	A:131:ILE:HD13	A:132:GLY:N	0.407
51	A:185:PHE:CD1	A:186:SER:N	0.404
52	A:80:MET:H	A:96:LEU:HA	0.583
52	A:405:ASP:HA	A:408:SER:HB3	0.563
52	A:224:LEU:C	A:224:LEU:HD13	0.540
52	A:40:VAL:HG23	A:94:VAL:HG13	0.477
52	A:453:LYS:HE2	A:453:LYS:O	0.470

Model ID	Atom-1	Atom-2	Clash overlap (Å)
52	A:137:GLN:CD	A:137:GLN:H	0.422
52	A:118:LEU:C	A:118:LEU:HD23	0.411
53	A:258:LEU:HD21	A:262:PHE:CD1	0.679
53	A:317:LEU:HD22	A:376:VAL:HB	0.670
53	A:418:LEU:HD12	A:471:MET:HE1	0.596
53	A:202:LEU:HD21	A:235:CYS:HB2	0.584
53	A:13:LEU:HD22	A:27:ALA:HB1	0.566
53	A:114:TRP:CZ2	A:304:ILE:HG21	0.563
53	A:81:TRP:C	A:94:VAL:HG23	0.516
53	A:114:TRP:CZ3	A:300:TYR:CE2	0.497
53	A:175:PHE:CE1	A:229:PHE:CE2	0.485
53	A:146:THR:HG22	A:225:CYS:HB2	0.484
53	A:197:THR:HB	A:198:PRO:HD2	0.481
53	A:11:MET:HB2	A:79:TRP:CH2	0.467
53	A:174:PHE:CZ	A:282:LEU:HG	0.464
53	A:55:MET:HA	A:95:LEU:HD21	0.463
53	A:296:LEU:HA	A:315:ALA:HB1	0.463
53	A:291:PRO:HA	A:294:GLU:HB3	0.453
53	A:58:LEU:HD23	A:95:LEU:HD22	0.450
53	A:79:TRP:HA	A:80:MET:CB	0.442
53	A:22:MET:C	A:22:MET:SD	0.427
53	A:21:LEU:HB3	A:114:TRP:CE2	0.426
53	A:461:LEU:C	A:461:LEU:HD22	0.422

Model ID	Atom-1	Atom-2	Clash overlap (Å)
53	A:328:VAL:HG22	A:332:ILE:HD12	0.420
53	A:79:TRP:HE1	A:81:TRP:HB2	0.412
53	A:127:VAL:HA	A:179:VAL:O	0.407
53	A:11:MET:HB3	A:79:TRP:CZ3	0.406
53	A:58:LEU:HB3	A:95:LEU:HD22	0.405
53	A:354:LEU:C	A:356:LEU:H	0.405
53	A:485:LYS:HA	A:485:LYS:HE3	0.404
54	A:38:MET:HE3	A:40:VAL:HB	0.654
54	A:435:LEU:CD1	A:439:LYS:HE3	0.597
54	A:38:MET:HE2	A:288:VAL:HG13	0.569
54	A:350:LEU:H	A:350:LEU:HD13	0.561
54	A:38:MET:HE2	A:288:VAL:CG1	0.531
54	A:81:TRP:C	A:94:VAL:HG23	0.519
54	A:162:GLU:CD	A:162:GLU:H	0.515
54	A:14:ILE:O	A:14:ILE:HD12	0.511
54	A:114:TRP:CZ2	A:304:ILE:HG21	0.507
54	A:312:MET:HA	A:315:ALA:HB3	0.505
54	A:384:LEU:C	A:384:LEU:HD13	0.503
54	A:121:LEU:HD13	A:122:LEU:N	0.499
54	A:223:ARG:HA	A:226:ILE:HG22	0.498
54	A:335:TYR:CD1	A:391:LYS:HD3	0.492
54	A:353:LEU:HD11	A:395:PHE:CE1	0.476
54	A:121:LEU:HD23	A:300:TYR:CD1	0.475

Model ID	Atom-1	Atom-2	Clash overlap (Å)
54	A:238:PHE:CE2	A:262:PHE:CD2	0.472
54	A:142:LEU:HA	A:142:LEU:HD12	0.469
54	A:324:ASN:OD1	A:374:LYS:HE3	0.467
54	A:55:MET:HG2	A:95:LEU:HD23	0.458
54	A:126:PHE:CE1	A:178:PHE:CE2	0.457
54	A:122:LEU:HD11	A:293:LEU:HD12	0.455
54	A:78:ILE:HG23	A:96:LEU:HD11	0.454
54	A:325:SER:HA	A:328:VAL:HG12	0.452
54	A:38:MET:HE1	A:293:LEU:HD21	0.448
54	A:335:TYR:CE2	A:387:GLN:HB3	0.448
54	A:10:PRO:HD2	A:79:TRP:HE1	0.447
54	A:174:PHE:CZ	A:176:PRO:HD3	0.446
54	A:14:ILE:HG22	A:23:ALA:HA	0.442
54	A:175:PHE:CD1	A:230:PHE:HB2	0.429
54	A:286:ILE:HD13	A:320:ALA:HA	0.425
54	A:61:LYS:HB2	A:81:TRP:HE1	0.424
54	A:41:VAL:HG11	A:58:LEU:CD2	0.422
54	A:407:CYS:HB2	A:460:ILE:HG12	0.420
54	A:450:GLU:HA	A:451:PRO:HD3	0.410
54	A:155:LYS:HA	A:313:GLU:HB3	0.409
54	A:411:LEU:HD21	A:447:TYR:CZ	0.407
54	A:353:LEU:HA	A:353:LEU:HD12	0.404
54	A:142:LEU:HG	A:145:VAL:HG12	0.402

Model ID	Atom-1	Atom-2	Clash overlap (Å)
54	A:206:LEU:HD11	A:223:ARG:HB3	0.401
54	A:317:LEU:HA	A:320:ALA:HB3	0.400
55	A:44:VAL:HG22	A:45:GLY:H	0.718
55	A:300:TYR:CE2	A:310:PRO:HG2	0.626
55	A:38:MET:HE1	A:293:LEU:HD21	0.616
55	A:171:PHE:CE2	A:229:PHE:CE1	0.616
55	A:171:PHE:CZ	A:229:PHE:CE1	0.615
55	A:81:TRP:C	A:94:VAL:HG23	0.559
55	A:230:PHE:CD2	A:231:PRO:HD2	0.539
55	A:171:PHE:CE2	A:229:PHE:CZ	0.522
55	A:14:ILE:HD12	A:21:LEU:HD21	0.499
55	A:286:ILE:HD12	A:373:PHE:HB3	0.499
55	A:202:LEU:HD21	A:235:CYS:HB2	0.475
55	A:242:VAL:HG22	A:243:HIS:H	0.475
55	A:180:TRP:CD1	A:233:LYS:HZ1	0.473
55	A:292:ARG:HG2	A:319:LEU:HD22	0.464
55	A:41:VAL:HG13	A:95:LEU:HD12	0.458
55	A:483:THR:HG23	A:486:GLU:H	0.457
55	A:79:TRP:CG	A:80:MET:N	0.453
55	A:40:VAL:HG23	A:94:VAL:HG13	0.452
55	A:55:MET:HG2	A:95:LEU:HD21	0.452
55	A:174:PHE:HE2	A:280:LYS:HE3	0.446
55	A:47:TYR:CZ	A:73:SER:HA	0.444

Model ID	Atom-1	Atom-2	Clash overlap (Å)
55	A:175:PHE:CD2	A:176:PRO:HD2	0.443
55	A:512:LYS:CE	A:512:LYS:HA	0.442
55	A:55:MET:HG2	A:95:LEU:CD2	0.431
55	A:335:TYR:CD2	A:391:LYS:HE3	0.426
55	A:456:GLN:NE2	A:460:ILE:HD12	0.426
55	A:81:TRP:CZ2	A:83:VAL:HB	0.421
55	A:171:PHE:CZ	A:229:PHE:CZ	0.421
55	A:300:TYR:CE2	A:310:PRO:CG	0.421
55	A:11:MET:HB3	A:79:TRP:CH2	0.419
55	A:38:MET:CE	A:293:LEU:HD21	0.417
55	A:38:MET:HE2	A:288:VAL:HG13	0.415
55	A:121:LEU:HD23	A:300:TYR:CE1	0.415
55	A:433:TYR:CE1	A:476:LEU:HD12	0.414
55	A:280:LYS:HB3	A:288:VAL:CG1	0.413
55	A:566:GLN:HA	A:569:SER:HB3	0.411
55	A:116:PHE:CE1	A:144:TYR:CD2	0.408
55	A:177:ASP:HA	A:230:PHE:CZ	0.405
55	A:80:MET:HG3	A:80:MET:O	0.403
56	A:38:MET:HE1	A:293:LEU:HD21	0.668
56	A:114:TRP:CZ2	A:304:ILE:HG21	0.632
56	A:121:LEU:HD22	A:300:TYR:HD1	0.604
56	A:78:ILE:HD11	A:98:THR:HG22	0.592
56	A:55:MET:HA	A:95:LEU:HD21	0.557

Model ID	Atom-1	Atom-2	Clash overlap (Å)
56	A:41:VAL:HG21	A:273:ILE:HD11	0.551
56	A:14:ILE:HD11	A:78:ILE:HB	0.549
56	A:202:LEU:HD23	A:233:LYS:HD3	0.539
56	A:38:MET:HE2	A:288:VAL:CG1	0.534
56	A:177:ASP:HA	A:230:PHE:CZ	0.518
56	A:38:MET:CE	A:293:LEU:HD21	0.514
56	A:175:PHE:CD2	A:176:PRO:HD2	0.503
56	A:478:THR:O	A:487:LYS:HB2	0.498
56	A:178:PHE:CE1	A:226:ILE:HD11	0.484
56	A:47:TYR:CE2	A:73:SER:HA	0.470
56	A:226:ILE:O	A:226:ILE:HD13	0.470
56	A:38:MET:HE2	A:288:VAL:HG13	0.462
56	A:120:VAL:HG23	A:175:PHE:CE2	0.456
56	A:440:LEU:HD11	A:465:LEU:HD21	0.456
56	A:375:ASP:HB3	A:378:HIS:HA	0.450
56	A:479:ASP:CG	A:481:THR:H	0.444
56	A:390:LYS:HA	A:390:LYS:HD3	0.434
56	A:414:ILE:HG13	A:443:LEU:HD22	0.433
56	A:573:LYS:HA	A:573:LYS:HE2	0.428
56	A:38:MET:HE1	A:293:LEU:HD11	0.427
56	A:415:PHE:CD1	A:464:TYR:CE1	0.423
56	A:38:MET:HE2	A:288:VAL:HG11	0.422
56	A:221:LEU:N	A:222:PRO:HD2	0.421

Model ID	Atom-1	Atom-2	Clash overlap (Å)
56	A:353:LEU:HD11	A:395:PHE:CZ	0.417
56	A:313:GLU:HA	A:316:VAL:HG12	0.416
56	A:289:ASN:H	A:292:ARG:CB	0.415
56	A:55:MET:C	A:55:MET:SD	0.412
56	A:418:LEU:HD13	A:443:LEU:HD23	0.409
56	A:11:MET:HB3	A:79:TRP:CH2	0.408
56	A:254:GLN:CD	A:254:GLN:H	0.404
57	A:391:LYS:HA	A:391:LYS:HE3	0.540
57	A:86:PRO:HD2	A:274:PHE:CD1	0.513
57	A:11:MET:HG2	A:79:TRP:CZ3	0.509
57	A:43:ILE:HG21	A:95:LEU:HD11	0.466
57	A:391:LYS:CE	A:391:LYS:HA	0.451
57	A:46:LEU:CD2	A:46:LEU:H	0.428
57	A:335:TYR:CE2	A:360:SER:HB2	0.408
57	A:47:TYR:CE1	A:73:SER:HB2	0.402
58	A:178:PHE:CD1	A:233:LYS:HE2	0.621
58	A:174:PHE:CG	A:175:PHE:HA	0.523
58	A:154:SER:HB3	A:170:ASP:HB2	0.460
58	A:468:LYS:HA	A:468:LYS:HE3	0.447
58	A:241:PRO:HA	A:262:PHE:CG	0.421
58	A:466:LYS:HA	A:466:LYS:HD2	0.407
59	A:143:TYR:CZ	A:221:LEU:HD23	0.552
59	A:197:THR:HB	A:200:GLU:HB2	0.549

Model ID	Atom-1	Atom-2	Clash overlap (Å)
59	A:354:LEU:C	A:354:LEU:HD13	0.506
59	A:345:LEU:HA	A:346:PRO:C	0.504
59	A:380:PHE:C	A:380:PHE:CD1	0.483
59	A:10:PRO:HA	A:79:TRP:CH2	0.465
59	A:31:LEU:HD13	A:80:MET:SD	0.457
59	A:79:TRP:HA	A:80:MET:HB2	0.449
59	A:280:LYS:H	A:288:VAL:HG12	0.435
59	A:181:THR:HG22	A:236:PHE:HB3	0.428
59	A:190:GLU:HA	A:190:GLU:OE1	0.426
59	A:144:TYR:C	A:144:TYR:CD2	0.422
59	A:157:SER:HB3	A:162:GLU:HG3	0.401
60	A:180:TRP:CG	A:233:LYS:HZ1	0.538
60	A:415:PHE:CE2	A:464:TYR:CD1	0.528
60	A:278:LYS:HA	A:278:LYS:HE3	0.477
60	A:174:PHE:CG	A:175:PHE:HA	0.471
60	A:43:ILE:HG13	A:129:ASN:HD21	0.445
60	A:86:PRO:O	A:87:LYS:HE3	0.439
60	A:265:GLN:HA	A:268:ASP:HB3	0.427
60	A:316:VAL:HG13	A:317:LEU:HD22	0.426
60	A:269:PHE:O	A:273:ILE:HG22	0.415
60	A:524:TYR:C	A:524:TYR:CD2	0.406
60	A:369:ILE:HD13	A:369:ILE:HG21	0.405
60	A:43:ILE:CG1	A:129:ASN:HD21	0.404

Model ID	Atom-1	Atom-2	Clash overlap (Å)
60	A:134:ILE:HG21	A:205:SER:CB	0.403
60	A:178:PHE:CE1	A:233:LYS:HE2	0.401
61	A:373:PHE:CG	A:374:LYS:N	0.471
61	A:79:TRP:HA	A:80:MET:CB	0.468
61	A:139:MET:HE1	A:222:PRO:HB2	0.466
61	A:85:HIS:CG	A:86:PRO:HD2	0.457
61	A:301:VAL:HA	A:304:ILE:HG22	0.427
61	A:427:TYR:CE1	A:435:LEU:HA	0.426
61	A:329:GLN:HA	A:333:ALA:HB3	0.422
61	A:360:SER:HA	A:363:GLU:HB2	0.409
61	A:21:LEU:HD23	A:114:TRP:CD2	0.401
62	A:391:LYS:HA	A:391:LYS:HE3	0.459
62	A:437:VAL:HA	A:440:LEU:HD12	0.455
62	A:47:TYR:CZ	A:73:SER:HB3	0.443
62	A:13:LEU:HG	A:14:ILE:HG23	0.437
62	A:4:GLU:CD	A:4:GLU:H	0.426
62	A:85:HIS:HA	A:86:PRO:HD2	0.417
63	A:324:ASN:CG	A:373:PHE:HB3	0.553
63	A:180:TRP:CG	A:233:LYS:HE3	0.527
63	A:479:ASP:C	A:487:LYS:HE2	0.513
63	A:27:ALA:HB1	A:79:TRP:CZ3	0.452
63	A:122:LEU:O	A:280:LYS:HE2	0.448
63	A:517:MET:HA	A:517:MET:HE2	0.426

Model ID	Atom-1	Atom-2	Clash overlap (Å)
63	A:480:GLN:N	A:487:LYS:HE2	0.405
63	A:139:MET:N	A:139:MET:SD	0.402
63	A:242:VAL:CG1	A:250:LEU:HD13	0.400
64	A:261:GLU:HG2	A:265:GLN:HE21	0.484
64	A:373:PHE:CE2	A:374:LYS:HE2	0.476
64	A:561:LEU:O	A:561:LEU:HD13	0.474
64	A:357:HIS:CD2	A:357:HIS:H	0.433
64	A:67:LEU:N	A:67:LEU:HD22	0.431
64	A:292:ARG:HA	A:292:ARG:HE	0.431
64	A:78:ILE:HD12	A:118:LEU:HD23	0.423
64	A:45:GLY:HA2	A:128:TYR:CE1	0.414
65	A:40:VAL:HG13	A:123:SER:HA	0.548
65	A:271:SER:HA	A:274:PHE:CE1	0.446
65	A:41:VAL:HA	A:125:THR:HB	0.445
65	A:339:MET:HE3	A:395:PHE:CD1	0.441
65	A:413:VAL:HG12	A:505:MET:HG2	0.423
65	A:316:VAL:HG12	A:320:ALA:HB2	0.420
65	A:47:TYR:CG	A:48:ARG:N	0.407
65	A:550:LEU:C	A:550:LEU:HD13	0.402
65	A:55:MET:HA	A:59:ALA:HB3	0.401
66	A:373:PHE:CE2	A:374:LYS:HE2	0.519
66	A:271:SER:HA	A:274:PHE:CD2	0.504
66	A:37:PRO:HA	A:289:ASN:OD1	0.464

Model ID	Atom-1	Atom-2	Clash overlap (Å)
66	A:234:LYS:HE2	A:272:TYR:CE1	0.460
66	A:427:TYR:CE2	A:432:GLY:HA3	0.458
66	A:552:LEU:C	A:552:LEU:HD23	0.441
66	A:248:ALA:C	A:249:GLN:HE21	0.430
66	A:561:LEU:C	A:561:LEU:HD13	0.410
66	A:234:LYS:HE2	A:272:TYR:CZ	0.405
66	A:304:ILE:HA	A:304:ILE:HD12	0.403
67	A:14:ILE:HD11	A:78:ILE:HB	0.679
67	A:404:SER:HB3	A:460:ILE:HD13	0.629
67	A:13:LEU:HD21	A:31:LEU:HD22	0.587
67	A:67:LEU:HD13	A:68:GLY:H	0.582
67	A:411:LEU:HD13	A:464:TYR:HD1	0.580
67	A:411:LEU:HD13	A:464:TYR:CD1	0.570
67	A:80:MET:H	A:96:LEU:HA	0.556
67	A:83:VAL:CG2	A:84:PRO:HD2	0.534
67	A:43:ILE:HA	A:127:VAL:HG13	0.530
67	A:309:LEU:H	A:309:LEU:HD13	0.530
67	A:40:VAL:HG13	A:123:SER:C	0.503
67	A:122:LEU:HD11	A:293:LEU:CD1	0.489
67	A:40:VAL:HG13	A:123:SER:HA	0.480
67	A:83:VAL:HG22	A:84:PRO:HD2	0.475
67	A:230:PHE:CD2	A:231:PRO:HD2	0.469
67	A:122:LEU:HD11	A:293:LEU:HD12	0.456

Model ID	Atom-1	Atom-2	Clash overlap (Å)
67	A:178:PHE:CE1	A:233:LYS:HE2	0.452
67	A:182:LEU:HD23	A:183:ARG:H	0.452
67	A:114:TRP:CZ2	A:304:ILE:HG21	0.447
67	A:185:PHE:CD1	A:237:VAL:HG23	0.445
67	A:142:LEU:HA	A:142:LEU:HD12	0.434
67	A:313:GLU:HA	A:316:VAL:HG12	0.432
67	A:418:LEU:HD23	A:436:PHE:HD2	0.420
67	A:145:VAL:HG13	A:225:CYS:HB3	0.416
67	A:55:MET:HG2	A:95:LEU:HD21	0.412
67	A:128:TYR:CE1	A:142:LEU:HD13	0.409
67	A:114:TRP:CE2	A:304:ILE:HG21	0.404
68	A:1:MET:SD	A:61:LYS:HE2	0.496
68	A:5:ILE:HG13	A:6:HIS:H	0.493
68	A:353:LEU:HD11	A:395:PHE:CE1	0.484
68	A:300:TYR:CE2	A:310:PRO:HG3	0.482
68	A:443:LEU:C	A:443:LEU:HD23	0.473
68	A:224:LEU:C	A:224:LEU:HD13	0.454
68	A:44:VAL:HG11	A:126:PHE:CZ	0.452
68	A:464:TYR:C	A:464:TYR:CD1	0.449
68	A:91:HIS:CD2	A:92:ILE:H	0.436
68	A:345:LEU:H	A:345:LEU:HD23	0.436
68	A:528:LEU:C	A:528:LEU:HD13	0.436
68	A:44:VAL:HG22	A:45:GLY:H	0.433

Model ID	Atom-1	Atom-2	Clash overlap (Å)
68	A:44:VAL:HG22	A:45:GLY:N	0.426
68	A:458:GLU:HA	A:461:LEU:HB3	0.422
68	A:327:ALA:HB2	A:372:SER:HB3	0.416
68	A:177:ASP:HA	A:230:PHE:CE2	0.410
68	A:228:LYS:HE3	A:555:GLN:NE2	0.410
68	A:495:LYS:HB3	A:495:LYS:HE3	0.404
68	A:95:LEU:C	A:95:LEU:HD13	0.403
68	A:175:PHE:CE1	A:229:PHE:CD2	0.403
69	A:44:VAL:HG22	A:45:GLY:H	0.617
69	A:146:THR:HG21	A:221:LEU:HB3	0.590
69	A:484:GLU:OE1	A:485:LYS:HE3	0.560
69	A:225:CYS:SG	A:229:PHE:CD1	0.543
69	A:14:ILE:HD13	A:21:LEU:HD21	0.528
69	A:482:LEU:H	A:482:LEU:HD13	0.528
69	A:40:VAL:HG21	A:122:LEU:O	0.519
69	A:182:LEU:HD23	A:185:PHE:CD1	0.517
69	A:286:ILE:HD11	A:323:GLU:HG2	0.515
69	A:80:MET:HE3	A:94:VAL:HG21	0.508
69	A:226:ILE:HD12	A:233:LYS:HE2	0.507
69	A:407:CYS:HB3	A:460:ILE:HG21	0.500
69	A:11:MET:HB2	A:79:TRP:CH2	0.494
69	A:209:LYS:HE3	A:571:ILE:HG13	0.494
69	A:182:LEU:HD23	A:185:PHE:CG	0.492

Model ID	Atom-1	Atom-2	Clash overlap (Å)
69	A:177:ASP:HA	A:230:PHE:CZ	0.490
69	A:55:MET:HA	A:95:LEU:HD21	0.488
69	A:75:THR:HG22	A:76:LYS:H	0.480
69	A:462:GLN:HE22	A:503:ALA:HA	0.454
69	A:13:LEU:HD22	A:27:ALA:HB1	0.453
69	A:146:THR:HG21	A:221:LEU:CB	0.453
69	A:47:TYR:CZ	A:73:SER:HA	0.452
69	A:40:VAL:HG23	A:94:VAL:HG13	0.451
69	A:350:LEU:HB2	A:455:ILE:HD13	0.451
69	A:38:MET:HE3	A:40:VAL:HB	0.448
69	A:447:TYR:CE1	A:457:ALA:HB1	0.444
69	A:47:TYR:CG	A:48:ARG:N	0.431
69	A:174:PHE:CD2	A:282:LEU:HD13	0.431
69	A:40:VAL:HB	A:94:VAL:CG1	0.430
69	A:201:TYR:C	A:201:TYR:CD2	0.419
69	A:75:THR:HG22	A:76:LYS:N	0.417
69	A:282:LEU:HD21	A:316:VAL:HB	0.417
69	A:309:LEU:HA	A:310:PRO:HD3	0.416
69	A:238:PHE:CE2	A:262:PHE:CD2	0.415
69	A:280:LYS:HB3	A:288:VAL:HG11	0.415
69	A:365:ILE:HA	A:365:ILE:HD12	0.414
69	A:320:ALA:HA	A:323:GLU:HB3	0.411
69	A:47:TYR:CE2	A:73:SER:HA	0.406

Model ID	Atom-1	Atom-2	Clash overlap (Å)
69	A:292:ARG:CG	A:319:LEU:HD22	0.404
69	A:202:LEU:HD23	A:233:LYS:HD2	0.403
69	A:230:PHE:CD2	A:231:PRO:HD2	0.403
70	A:204:TYR:O	A:207:LYS:HE2	0.566
70	A:165:VAL:O	A:165:VAL:HG12	0.543
70	A:457:ALA:HA	A:460:ILE:HG22	0.470
70	A:378:HIS:HB2	A:382:LYS:HE3	0.460
70	A:286:ILE:HD13	A:373:PHE:CD2	0.441
70	A:144:TYR:CE2	A:148:LEU:HD13	0.434
70	A:73:SER:OG	A:76:LYS:HE3	0.420
70	A:317:LEU:C	A:319:LEU:H	0.408
70	A:59:ALA:HA	A:93:LEU:HD21	0.406
70	A:342:LYS:HE2	A:352:GLU:O	0.403
71	A:198:PRO:HA	A:201:TYR:HB3	0.499
71	A:464:TYR:CZ	A:468:LYS:HE2	0.499
71	A:407:CYS:SG	A:453:LYS:HE3	0.492
71	A:55:MET:HG3	A:65:PHE:CD1	0.460
71	A:483:THR:HG23	A:485:LYS:HG2	0.454
71	A:55:MET:HG3	A:65:PHE:CE1	0.441
71	A:95:LEU:HD12	A:96:LEU:H	0.427
71	A:22:MET:HE3	A:301:VAL:HG13	0.424
72	A:47:TYR:CG	A:48:ARG:N	0.523
72	A:416:SER:HB3	A:417:PRO:HD3	0.477

Model ID	Atom-1	Atom-2	Clash overlap (Å)
72	A:553:LYS:HB3	A:576:ILE:HD11	0.473
72	A:300:TYR:CD1	A:310:PRO:HB2	0.454
72	A:553:LYS:HB3	A:576:ILE:CD1	0.405
73	A:11:MET:HE3	A:27:ALA:HB2	0.576
73	A:21:LEU:HD22	A:111:ASN:HB3	0.552
73	A:379:LEU:C	A:379:LEU:HD23	0.514
73	A:411:LEU:HA	A:414:ILE:HG22	0.496
73	A:466:LYS:HA	A:466:LYS:HE3	0.473
73	A:364:ALA:HA	A:367:VAL:HG12	0.448
73	A:489:ILE:H	A:489:ILE:HD12	0.439
73	A:517:MET:SD	A:520:LYS:HE3	0.422
73	A:528:LEU:C	A:528:LEU:HD13	0.412
73	A:525:GLN:NE2	A:528:LEU:HD12	0.403
74	A:38:MET:HE2	A:293:LEU:HD21	0.639
74	A:368:PHE:CD1	A:384:LEU:HD23	0.583
74	A:65:PHE:CZ	A:75:THR:HG23	0.557
74	A:399:ASN:HD21	A:455:ILE:CG2	0.502
74	A:44:VAL:HG22	A:45:GLY:H	0.501
74	A:368:PHE:CE2	A:380:PHE:CE1	0.490
74	A:223:ARG:HA	A:226:ILE:HG22	0.485
74	A:61:LYS:HE3	A:81:TRP:CE2	0.460
74	A:182:LEU:HB3	A:185:PHE:CD1	0.451
74	A:134:ILE:O	A:134:ILE:HG23	0.450

Model ID	Atom-1	Atom-2	Clash overlap (Å)
74	A:59:ALA:HB1	A:81:TRP:HE1	0.448
74	A:12:CYS:HA	A:79:TRP:HB2	0.447
74	A:80:MET:HG3	A:94:VAL:HG21	0.439
74	A:80:MET:HE3	A:94:VAL:HG21	0.427
74	A:471:MET:HE3	A:475:ILE:HD12	0.424
74	A:415:PHE:CD1	A:464:TYR:CE1	0.410
74	A:235:CYS:SG	A:236:PHE:N	0.410
74	A:332:ILE:HD13	A:332:ILE:HG21	0.405
74	A:238:PHE:CE2	A:262:PHE:CE2	0.404
75	A:55:MET:HE2	A:95:LEU:HG	0.697
75	A:14:ILE:HD13	A:21:LEU:HD21	0.616
75	A:317:LEU:HD11	A:374:LYS:HE2	0.605
75	A:14:ILE:C	A:14:ILE:HD12	0.567
75	A:14:ILE:HD13	A:21:LEU:HD11	0.555
75	A:258:LEU:HD21	A:262:PHE:CD1	0.555
75	A:292:ARG:HG2	A:319:LEU:HD21	0.555
75	A:457:ALA:HB3	A:458:GLU:OE2	0.535
75	A:422:VAL:HG21	A:471:MET:HB2	0.509
75	A:411:LEU:HD13	A:460:ILE:HG22	0.506
75	A:414:ILE:HD13	A:446:LYS:HD3	0.503
75	A:14:ILE:O	A:14:ILE:HD12	0.495
75	A:122:LEU:HD12	A:296:LEU:HD22	0.488
75	A:34:ILE:HG23	A:290:GLY:HA3	0.481

Model ID	Atom-1	Atom-2	Clash overlap (Å)
75	A:457:ALA:HB3	A:458:GLU:CD	0.472
75	A:114:TRP:CZ2	A:304:ILE:HG21	0.471
75	A:43:ILE:CG1	A:129:ASN:HD21	0.458
75	A:353:LEU:HD11	A:395:PHE:CZ	0.453
75	A:125:THR:HG21	A:273:ILE:HD12	0.452
75	A:411:LEU:HD22	A:460:ILE:HG23	0.452
75	A:224:LEU:C	A:224:LEU:HD13	0.447
75	A:122:LEU:O	A:280:LYS:HE3	0.442
75	A:399:ASN:HD21	A:455:ILE:CG2	0.439
75	A:5:ILE:O	A:5:ILE:HG23	0.437
75	A:411:LEU:HD11	A:464:TYR:HD1	0.432
75	A:177:ASP:HA	A:230:PHE:CE2	0.431
75	A:411:LEU:HD11	A:464:TYR:CD1	0.431
75	A:559:GLN:HB3	A:569:SER:HB2	0.431
75	A:495:LYS:HA	A:495:LYS:HE3	0.426
75	A:411:LEU:HD13	A:460:ILE:CG2	0.424
75	A:31:LEU:HD11	A:80:MET:HE2	0.421
75	A:468:LYS:HG3	A:471:MET:HB3	0.418
75	A:31:LEU:CD1	A:80:MET:HE2	0.416
75	A:472:THR:HG22	A:495:LYS:HB3	0.412
75	A:271:SER:HA	A:274:PHE:HB3	0.408
75	A:177:ASP:HA	A:230:PHE:CZ	0.407
75	A:147:GLU:C	A:151:ARG:HH21	0.407

Model ID	Atom-1	Atom-2	Clash overlap (Å)
75	A:528:LEU:C	A:528:LEU:HD13	0.405
76	A:40:VAL:HG13	A:124:SER:H	0.607
76	A:37:PRO:HB2	A:91:HIS:CE1	0.554
76	A:136:GLN:CD	A:136:GLN:H	0.554
76	A:184:ASP:C	A:186:SER:H	0.503
76	A:330:LYS:HE3	A:334:HIS:CG	0.472
76	A:39:VAL:HG12	A:279:THR:HG22	0.453
76	A:445:LYS:HB3	A:445:LYS:HE3	0.452
76	A:543:LEU:N	A:543:LEU:HD22	0.436
76	A:221:LEU:HB3	A:222:PRO:HD3	0.421
76	A:61:LYS:HB3	A:61:LYS:HE3	0.413
76	A:416:SER:HB2	A:417:PRO:HD3	0.413
76	A:98:THR:HB	A:115:ILE:CG2	0.411
76	A:57:LYS:HE2	A:266:VAL:HG13	0.405
76	A:37:PRO:CB	A:91:HIS:CE1	0.401
77	A:368:PHE:CD2	A:384:LEU:HD23	0.471
77	A:44:VAL:HG21	A:126:PHE:CZ	0.461
77	A:38:MET:H	A:287:GLN:NE2	0.453
77	A:552:LEU:HA	A:552:LEU:HD12	0.433
77	A:292:ARG:HA	A:292:ARG:HE	0.423
77	A:179:VAL:HG22	A:180:TRP:H	0.412
77	A:88:LYS:HA	A:89:PRO:HD3	0.408
78	A:224:LEU:C	A:224:LEU:HD13	0.445

Model ID	Atom-1	Atom-2	Clash overlap (Å)
78	A:543:LEU:C	A:543:LEU:HD23	0.436
78	A:208:LEU:C	A:208:LEU:HD13	0.427
78	A:146:THR:C	A:148:LEU:H	0.423
78	A:77:GLY:O	A:78:ILE:HG13	0.415
78	A:85:HIS:CE1	A:88:LYS:HG3	0.411
79	A:180:TRP:CG	A:233:LYS:HE3	0.607
79	A:293:LEU:C	A:293:LEU:HD13	0.583
79	A:345:LEU:HG	A:346:PRO:HA	0.566
79	A:221:LEU:HB3	A:222:PRO:HD3	0.548
79	A:553:LYS:HE3	A:576:ILE:HD11	0.523
79	A:427:TYR:CD2	A:432:GLY:HA3	0.476
79	A:180:TRP:HB2	A:233:LYS:HE3	0.457
79	A:53:TYR:CD1	A:250:LEU:HD23	0.439
79	A:482:LEU:H	A:482:LEU:HD23	0.437
79	A:501:ALA:HA	A:504:LYS:HE3	0.436
79	A:24:ASN:C	A:24:ASN:OD1	0.422
79	A:10:PRO:HA	A:79:TRP:CZ2	0.408
79	A:182:LEU:HA	A:182:LEU:HD23	0.406
79	A:293:LEU:C	A:293:LEU:CD1	0.405
79	A:55:MET:HG2	A:95:LEU:HD21	0.400
80	A:241:PRO:HA	A:262:PHE:CD1	0.459
80	A:178:PHE:CD1	A:230:PHE:CE2	0.452
80	A:272:TYR:O	A:276:ASN:HB2	0.433

Model ID	Atom-1	Atom-2	Clash overlap (Å)
80	A:561:LEU:C	A:561:LEU:HD13	0.431
80	A:9:GLY:HA2	A:81:TRP:CE2	0.418
80	A:34:ILE:HA	A:34:ILE:HD12	0.415
80	A:122:LEU:HD13	A:293:LEU:HD11	0.414
80	A:460:ILE:HA	A:460:ILE:HD12	0.402
81	A:154:SER:HA	A:312:MET:HE3	0.513
81	A:121:LEU:O	A:280:LYS:HE2	0.501
81	A:44:VAL:HG11	A:126:PHE:CE2	0.467
81	A:255:ASP:HA	A:258:LEU:HD12	0.444
81	A:534:LYS:HA	A:534:LYS:HE2	0.442
81	A:13:LEU:O	A:13:LEU:HD23	0.425
81	A:214:GLN:O	A:218:THR:HG23	0.414
81	A:410:LEU:CD1	A:453:LYS:HE2	0.414
81	A:46:LEU:H	A:46:LEU:HD12	0.400
82	A:79:TRP:CH2	A:80:MET:HE2	0.522
82	A:384:LEU:C	A:384:LEU:HD13	0.515
82	A:435:LEU:C	A:435:LEU:HD23	0.489
82	A:79:TRP:CZ3	A:80:MET:HE2	0.446
82	A:379:LEU:C	A:379:LEU:HD23	0.445
82	A:21:LEU:C	A:22:MET:HG3	0.427
82	A:121:LEU:HD12	A:174:PHE:CD2	0.415
82	A:55:MET:HG3	A:95:LEU:HD21	0.401
83	A:190:GLU:CD	A:190:GLU:H	0.569

Model ID	Atom-1	Atom-2	Clash overlap (Å)
83	A:531:LEU:HD11	A:535:MET:HE3	0.560
83	A:80:MET:HE1	A:293:LEU:HD21	0.549
83	A:234:LYS:HE2	A:272:TYR:CE2	0.519
83	A:379:LEU:C	A:379:LEU:HD23	0.488
83	A:435:LEU:N	A:435:LEU:HD12	0.472
83	A:401:GLU:O	A:404:SER:HB3	0.445
83	A:332:ILE:HD11	A:391:LYS:HE2	0.432
83	A:384:LEU:C	A:384:LEU:HD23	0.412
83	A:531:LEU:O	A:535:MET:HG3	0.407
83	A:155:LYS:CE	A:159:ASP:HB2	0.403
84	A:114:TRP:CZ2	A:304:ILE:HG21	0.675
84	A:174:PHE:CZ	A:176:PRO:HD3	0.591
84	A:299:THR:HG21	A:318:ALA:CB	0.590
84	A:178:PHE:CD2	A:233:LYS:HE3	0.589
84	A:431:GLY:H	A:481:THR:HG21	0.585
84	A:282:LEU:HB3	A:286:ILE:HG23	0.566
84	A:38:MET:HE1	A:293:LEU:HD22	0.532
84	A:296:LEU:HG	A:315:ALA:HB1	0.532
84	A:79:TRP:CG	A:80:MET:H	0.531
84	A:123:SER:O	A:280:LYS:HE2	0.524
84	A:483:THR:HG23	A:486:GLU:H	0.514
84	A:317:LEU:HA	A:320:ALA:HB3	0.510
84	A:177:ASP:HA	A:230:PHE:CE2	0.508

Model ID	Atom-1	Atom-2	Clash overlap (Å)
84	A:31:LEU:HD13	A:80:MET:HE1	0.505
84	A:122:LEU:HD12	A:296:LEU:HD22	0.489
84	A:38:MET:HE3	A:94:VAL:CG1	0.487
84	A:529:LYS:HE2	A:529:LYS:O	0.482
84	A:79:TRP:CG	A:80:MET:N	0.480
84	A:38:MET:HB2	A:288:VAL:HG13	0.473
84	A:368:PHE:CD1	A:384:LEU:HD13	0.471
84	A:299:THR:HG21	A:318:ALA:HB3	0.465
84	A:121:LEU:HD23	A:300:TYR:CE1	0.461
84	A:175:PHE:HA	A:176:PRO:HD2	0.460
84	A:339:MET:HE3	A:395:PHE:CD2	0.456
84	A:38:MET:HE3	A:94:VAL:HG11	0.455
84	A:443:LEU:C	A:443:LEU:HD23	0.449
84	A:182:LEU:HD22	A:185:PHE:CD1	0.448
84	A:75:THR:HG22	A:76:LYS:H	0.445
84	A:44:VAL:HG22	A:45:GLY:H	0.443
84	A:45:GLY:HA2	A:128:TYR:CE2	0.440
84	A:410:LEU:HD23	A:447:TYR:CD2	0.440
84	A:565:PHE:CE1	A:568:GLU:HB2	0.439
84	A:120:VAL:HG23	A:175:PHE:CE2	0.437
84	A:282:LEU:HD21	A:316:VAL:HB	0.432
84	A:177:ASP:HB3	A:230:PHE:CZ	0.431
84	A:185:PHE:CG	A:237:VAL:HG23	0.427

Model ID	Atom-1	Atom-2	Clash overlap (Å)
84	A:189:LEU:HD21	A:201:TYR:CB	0.426
84	A:208:LEU:HA	A:208:LEU:HD13	0.419
84	A:185:PHE:CD1	A:237:VAL:HG23	0.418
84	A:99:GLU:HB3	A:115:ILE:HD13	0.414
84	A:286:ILE:HA	A:371:SER:HA	0.404
84	A:278:LYS:HA	A:278:LYS:HE2	0.401
84	A:447:TYR:O	A:453:LYS:HE2	0.401
84	A:178:PHE:CG	A:233:LYS:HE3	0.400
85	A:196:LEU:H	A:196:LEU:HD12	0.564
85	A:484:GLU:CD	A:484:GLU:H	0.556
85	A:204:TYR:O	A:207:LYS:HE3	0.476
85	A:44:VAL:HG22	A:45:GLY:H	0.473
85	A:420:GLU:HA	A:423:LYS:HB3	0.440
85	A:504:LYS:HE3	A:508:GLU:CG	0.437
85	A:191:ALA:HB2	A:196:LEU:HD11	0.433
85	A:224:LEU:C	A:224:LEU:HD13	0.431
85	A:175:PHE:CG	A:176:PRO:HD2	0.425
85	A:12:CYS:HA	A:79:TRP:HB2	0.420
85	A:528:LEU:C	A:528:LEU:HD13	0.416
85	A:105:GLU:HG3	A:143:TYR:CD2	0.401
86	A:330:LYS:HE2	A:367:VAL:HG22	0.559
86	A:139:MET:HE1	A:206:LEU:HD23	0.487
86	A:61:LYS:HD2	A:81:TRP:CH2	0.473

Model ID	Atom-1	Atom-2	Clash overlap (Å)
86	A:114:TRP:CE2	A:151:ARG:HD2	0.444
86	A:284:GLY:CA	A:374:LYS:HE3	0.443
86	A:114:TRP:CD2	A:151:ARG:HD2	0.432
86	A:300:TYR:CE1	A:310:PRO:HG2	0.428
86	A:180:TRP:O	A:235:CYS:HA	0.425
86	A:453:LYS:HE2	A:453:LYS:O	0.424
87	A:353:LEU:HD22	A:399:ASN:HD22	0.591
87	A:260:PRO:HA	A:263:VAL:HG12	0.586
87	A:78:ILE:HG23	A:96:LEU:HD11	0.578
87	A:410:LEU:HA	A:413:VAL:HB	0.568
87	A:543:LEU:C	A:543:LEU:HD13	0.542
87	A:418:LEU:HD11	A:439:LYS:HD2	0.498
87	A:127:VAL:HG23	A:181:THR:HG23	0.495
87	A:122:LEU:HD12	A:293:LEU:HD11	0.488
87	A:38:MET:HE2	A:288:VAL:HG13	0.479
87	A:353:LEU:HD11	A:395:PHE:CE2	0.467
87	A:98:THR:HB	A:115:ILE:HG23	0.456
87	A:335:TYR:CD2	A:391:LYS:HE2	0.453
87	A:38:MET:HE1	A:293:LEU:HD22	0.448
87	A:331:ALA:HB1	A:384:LEU:HD11	0.447
87	A:345:LEU:HD12	A:402:ALA:HB2	0.444
87	A:392:ARG:O	A:396:CYS:HB2	0.443
87	A:543:LEU:O	A:543:LEU:HD13	0.441

Model ID	Atom-1	Atom-2	Clash overlap (Å)
87	A:566:GLN:HA	A:569:SER:HB3	0.412
87	A:177:ASP:HA	A:230:PHE:CZ	0.410
87	A:236:PHE:CZ	A:265:GLN:HB3	0.409
87	A:367:VAL:HA	A:370:ARG:HE	0.409
87	A:55:MET:HA	A:95:LEU:HD21	0.403
88	A:258:LEU:HD21	A:262:PHE:CD1	0.615
88	A:344:GLN:HB2	A:452:ARG:HE	0.558
88	A:116:PHE:CE1	A:144:TYR:CD2	0.553
88	A:121:LEU:HD22	A:300:TYR:CE1	0.534
88	A:58:LEU:HB3	A:95:LEU:HD22	0.526
88	A:154:SER:H	A:167:ASP:CG	0.506
88	A:280:LYS:HB3	A:288:VAL:HG12	0.493
88	A:47:TYR:CG	A:48:ARG:N	0.489
88	A:44:VAL:HG22	A:45:GLY:H	0.484
88	A:375:ASP:HB3	A:378:HIS:HA	0.480
88	A:178:PHE:CE1	A:226:ILE:HD11	0.475
88	A:280:LYS:HB3	A:288:VAL:CG1	0.466
88	A:185:PHE:CD1	A:237:VAL:HG23	0.461
88	A:415:PHE:CD1	A:464:TYR:CE1	0.458
88	A:354:LEU:C	A:354:LEU:HD13	0.455
88	A:202:LEU:HD23	A:233:LYS:CD	0.451
88	A:292:ARG:C	A:292:ARG:HE	0.448
88	A:182:LEU:C	A:182:LEU:HD23	0.445

Model ID	Atom-1	Atom-2	Clash overlap (Å)
88	A:144:TYR:C	A:144:TYR:CD2	0.435
88	A:145:VAL:HG22	A:229:PHE:CZ	0.428
88	A:202:LEU:HD23	A:233:LYS:HD3	0.428
88	A:202:LEU:HD23	A:233:LYS:HG2	0.427
88	A:99:GLU:HB2	A:115:ILE:HD13	0.425
88	A:59:ALA:HB2	A:81:TRP:HE1	0.424
88	A:133:THR:HA	A:182:LEU:HD11	0.423
88	A:174:PHE:CE2	A:176:PRO:HD3	0.416
88	A:44:VAL:HG21	A:116:PHE:HB2	0.411
88	A:59:ALA:CB	A:81:TRP:HE1	0.408
88	A:81:TRP:CE3	A:82:CYS:N	0.407
88	A:34:ILE:HG23	A:290:GLY:CA	0.405
88	A:558:GLU:OE1	A:562:LYS:HE2	0.403
88	A:491:VAL:HA	A:494:VAL:HG12	0.402
89	A:180:TRP:HE1	A:182:LEU:HD22	0.725
89	A:114:TRP:CZ2	A:304:ILE:HG21	0.689
89	A:40:VAL:O	A:124:SER:HB3	0.548
89	A:44:VAL:HG23	A:98:THR:HG21	0.503
89	A:7:MET:SD	A:61:LYS:HG3	0.501
89	A:177:ASP:HA	A:230:PHE:CZ	0.493
89	A:311:CYS:SG	A:313:GLU:HB3	0.480
89	A:80:MET:HE3	A:94:VAL:HG21	0.469
89	A:185:PHE:CD1	A:237:VAL:HG23	0.468

Model ID	Atom-1	Atom-2	Clash overlap (Å)
89	A:81:TRP:C	A:94:VAL:HG23	0.466
89	A:332:ILE:HD11	A:387:GLN:HG2	0.464
89	A:127:VAL:CG2	A:181:THR:HG23	0.454
89	A:21:LEU:HA	A:21:LEU:HD12	0.449
89	A:393:ASP:O	A:397:LYS:HE3	0.445
89	A:114:TRP:CE2	A:304:ILE:HD13	0.442
89	A:292:ARG:HG2	A:319:LEU:HD21	0.440
89	A:174:PHE:C	A:174:PHE:CD2	0.434
89	A:415:PHE:CD1	A:464:TYR:CE1	0.427
89	A:121:LEU:HD22	A:300:TYR:CD1	0.421
89	A:10:PRO:HB2	A:79:TRP:CZ2	0.419
89	A:55:MET:HE1	A:97:ASP:H	0.418
89	A:480:GLN:HE22	A:487:LYS:HE3	0.417
89	A:229:PHE:C	A:229:PHE:CD2	0.416
89	A:41:VAL:HG13	A:95:LEU:HD12	0.415
89	A:339:MET:HE1	A:395:PHE:CD1	0.414
89	A:96:LEU:HD13	A:122:LEU:HD23	0.413
89	A:447:TYR:CE1	A:461:LEU:HB2	0.409
89	A:567:LYS:HB2	A:567:LYS:HE2	0.407
90	A:329:GLN:HA	A:332:ILE:HD12	0.571
90	A:468:LYS:HA	A:468:LYS:HE2	0.490
90	A:61:LYS:HE2	A:81:TRP:CZ3	0.480
90	A:61:LYS:HE3	A:65:PHE:CE1	0.456

Model ID	Atom-1	Atom-2	Clash overlap (Å)
90	A:336:GLU:HA	A:339:MET:HE2	0.432
90	A:44:VAL:HG13	A:128:TYR:CD2	0.426
90	A:43:ILE:HG21	A:55:MET:HB2	0.425
90	A:153:ARG:O	A:311:CYS:HA	0.424
90	A:223:ARG:C	A:223:ARG:HD3	0.418
90	A:121:LEU:HD22	A:300:TYR:CG	0.406
90	A:369:ILE:HA	A:372:SER:HB2	0.405
90	A:571:ILE:O	A:571:ILE:HG22	0.400
91	A:139:MET:HE1	A:219:PHE:CZ	0.637
91	A:344:GLN:C	A:345:LEU:HD22	0.539
91	A:122:LEU:HD21	A:297:VAL:HA	0.532
91	A:44:VAL:HG22	A:45:GLY:N	0.510
91	A:330:LYS:HE2	A:367:VAL:CG2	0.504
91	A:312:MET:C	A:312:MET:SD	0.491
91	A:93:LEU:HG	A:94:VAL:N	0.481
91	A:417:PRO:HB2	A:439:LYS:HE2	0.468
91	A:504:LYS:HA	A:504:LYS:HE2	0.457
91	A:271:SER:HA	A:274:PHE:CZ	0.446
91	A:96:LEU:C	A:96:LEU:HD23	0.443
91	A:475:ILE:HG23	A:476:LEU:H	0.440
91	A:559:GLN:HA	A:563:GLU:HG3	0.439
91	A:258:LEU:H	A:258:LEU:HD12	0.437
91	A:447:TYR:CE2	A:453:LYS:HE2	0.436

Model ID	Atom-1	Atom-2	Clash overlap (Å)
91	A:12:CYS:SG	A:15:GLU:HB2	0.427
91	A:116:PHE:CZ	A:145:VAL:HA	0.426
91	A:345:LEU:HA	A:346:PRO:HA	0.422
91	A:572:MET:HA	A:572:MET:HE3	0.418
91	A:46:LEU:HD21	A:141:GLN:HG2	0.416
91	A:45:GLY:HA2	A:128:TYR:CE2	0.412
91	A:118:LEU:C	A:118:LEU:HD23	0.411
91	A:422:VAL:HG11	A:471:MET:HG3	0.410
91	A:221:LEU:HA	A:221:LEU:HD12	0.409
91	A:339:MET:HE3	A:395:PHE:CE2	0.403
91	A:416:SER:HA	A:420:GLU:HG3	0.401
92	A:215:LYS:HA	A:215:LYS:HE2	0.620
92	A:14:ILE:HD12	A:21:LEU:HD22	0.468
92	A:185:PHE:CE2	A:187:LEU:HD23	0.467
92	A:128:TYR:CG	A:129:ASN:N	0.451
92	A:134:ILE:HD13	A:202:LEU:HD22	0.434
92	A:345:LEU:HA	A:346:PRO:HA	0.412
92	A:450:GLU:HA	A:451:PRO:HD3	0.407
92	A:127:VAL:HG23	A:179:VAL:HG13	0.406
93	A:174:PHE:CE1	A:312:MET:HE2	0.680
93	A:561:LEU:C	A:561:LEU:HD13	0.596
93	A:552:LEU:H	A:552:LEU:HD22	0.566
93	A:300:TYR:O	A:304:ILE:HG22	0.494

Model ID	Atom-1	Atom-2	Clash overlap (Å)
93	A:121:LEU:HD22	A:300:TYR:CD1	0.485
93	A:174:PHE:CZ	A:312:MET:HE2	0.462
93	A:53:TYR:CE2	A:250:LEU:HD23	0.444
93	A:250:LEU:HD21	A:258:LEU:HD21	0.441
93	A:317:LEU:C	A:317:LEU:HD13	0.438
93	A:44:VAL:HG22	A:45:GLY:H	0.415
94	A:122:LEU:HD13	A:296:LEU:HD22	0.696
94	A:122:LEU:HD11	A:293:LEU:HD12	0.694
94	A:185:PHE:CD1	A:237:VAL:HG23	0.623
94	A:79:TRP:CG	A:80:MET:H	0.603
94	A:202:LEU:HD21	A:235:CYS:HB2	0.583
94	A:407:CYS:SG	A:460:ILE:HG21	0.537
94	A:122:LEU:HD11	A:293:LEU:CD1	0.526
94	A:292:ARG:HH12	A:316:VAL:HA	0.501
94	A:38:MET:HE1	A:293:LEU:HD21	0.494
94	A:258:LEU:HD23	A:259:ASP:N	0.484
94	A:258:LEU:HD22	A:263:VAL:HB	0.475
94	A:79:TRP:CG	A:80:MET:N	0.473
94	A:79:TRP:CD1	A:80:MET:H	0.473
94	A:290:GLY:N	A:291:PRO:HD2	0.463
94	A:21:LEU:HD23	A:114:TRP:CD1	0.461
94	A:258:LEU:HD21	A:262:PHE:HD1	0.450
94	A:234:LYS:HE3	A:272:TYR:CZ	0.449

Model ID	Atom-1	Atom-2	Clash overlap (Å)
94	A:407:CYS:HB3	A:460:ILE:HG21	0.442
94	A:304:ILE:O	A:304:ILE:HD13	0.435
94	A:295:SER:HB3	A:319:LEU:CD1	0.433
94	A:524:TYR:C	A:524:TYR:CD2	0.431
94	A:407:CYS:CB	A:460:ILE:HG21	0.428
94	A:566:GLN:HE21	A:570:ARG:HG2	0.427
94	A:238:PHE:CE2	A:262:PHE:CE2	0.426
94	A:295:SER:CB	A:319:LEU:HD12	0.425
94	A:80:MET:HE3	A:94:VAL:HG21	0.421
94	A:348:GLU:HA	A:454:GLY:HA2	0.420
94	A:295:SER:HB3	A:319:LEU:HD12	0.419
94	A:120:VAL:HG21	A:148:LEU:HD21	0.412
94	A:230:PHE:CD2	A:231:PRO:HD2	0.410
94	A:6:HIS:C	A:7:MET:HG3	0.409
94	A:88:LYS:HA	A:89:PRO:HD3	0.409
94	A:300:TYR:CE2	A:310:PRO:HG3	0.407
95	A:234:LYS:HE2	A:272:TYR:CD2	0.528
95	A:13:LEU:HD22	A:80:MET:HE1	0.521
95	A:333:ALA:HB2	A:527:HIS:CE1	0.493
95	A:96:LEU:HG	A:98:THR:HG23	0.462
95	A:371:SER:HB3	A:380:PHE:CE1	0.444
95	A:224:LEU:HD11	A:228:LYS:HE3	0.422
95	A:389:GLU:CD	A:392:ARG:HH22	0.420

Model ID	Atom-1	Atom-2	Clash overlap (Å)
95	A:24:ASN:HA	A:25:PRO:HD2	0.415
95	A:565:PHE:CE1	A:567:LYS:HB2	0.414
95	A:553:LYS:HE2	A:557:GLN:NE2	0.407
95	A:358:ARG:HH21	A:361:GLU:CD	0.402
95	A:7:MET:HG2	A:8:THR:N	0.401
95	A:44:VAL:HG22	A:45:GLY:N	0.401
95	A:120:VAL:HG11	A:148:LEU:CD2	0.400
96	A:79:TRP:CG	A:80:MET:H	0.658
96	A:38:MET:HE2	A:288:VAL:HG21	0.519
96	A:319:LEU:HA	A:322:ILE:HG22	0.512
96	A:65:PHE:CZ	A:75:THR:HG21	0.508
96	A:59:ALA:HB2	A:81:TRP:HE1	0.507
96	A:51:LYS:HG2	A:183:ARG:HH12	0.502
96	A:59:ALA:CB	A:81:TRP:HE1	0.484
96	A:79:TRP:CG	A:80:MET:N	0.480
96	A:362:ARG:HA	A:365:ILE:HG22	0.473
96	A:65:PHE:CE2	A:75:THR:HG21	0.461
96	A:339:MET:HE2	A:395:PHE:CD2	0.452
96	A:180:TRP:CD1	A:233:LYS:HE2	0.450
96	A:41:VAL:HG13	A:95:LEU:HD13	0.447
96	A:152:ILE:HG21	A:171:PHE:CE1	0.447
96	A:407:CYS:SG	A:460:ILE:HG21	0.444
96	A:125:THR:HG21	A:273:ILE:HG13	0.438

Model ID	Atom-1	Atom-2	Clash overlap (Å)
96	A:410:LEU:HD22	A:453:LYS:HE2	0.434
96	A:185:PHE:CD1	A:237:VAL:HG23	0.433
96	A:47:TYR:CG	A:48:ARG:N	0.431
96	A:83:VAL:CG2	A:84:PRO:HD2	0.429
96	A:171:PHE:CE2	A:229:PHE:CZ	0.429
96	A:292:ARG:C	A:292:ARG:HD3	0.427
96	A:14:ILE:HD12	A:21:LEU:HD21	0.425
96	A:21:LEU:HD23	A:114:TRP:CE2	0.420
96	A:38:MET:HG3	A:92:ILE:HG23	0.415
96	A:379:LEU:HD22	A:382:LYS:HE3	0.414
96	A:11:MET:HB3	A:79:TRP:CH2	0.412
96	A:14:ILE:CD1	A:21:LEU:HD21	0.407
96	A:274:PHE:C	A:274:PHE:CD1	0.407
96	A:238:PHE:CE2	A:262:PHE:CG	0.405
96	A:88:LYS:HB3	A:88:LYS:HE2	0.401
97	A:339:MET:HE3	A:395:PHE:CE2	0.584
97	A:357:HIS:C	A:357:HIS:CD2	0.468
97	A:317:LEU:C	A:317:LEU:HD13	0.455
97	A:101:LEU:C	A:101:LEU:HD23	0.452
97	A:543:LEU:C	A:543:LEU:HD13	0.419
97	A:566:GLN:CD	A:566:GLN:H	0.414
98	A:234:LYS:HE3	A:272:TYR:CE2	0.583
98	A:7:MET:HE1	A:81:TRP:CH2	0.568

Model ID	Atom-1	Atom-2	Clash overlap (Å)
98	A:55:MET:HG2	A:95:LEU:HD21	0.550
98	A:44:VAL:HG22	A:45:GLY:H	0.524
98	A:561:LEU:C	A:561:LEU:HD13	0.511
98	A:59:ALA:HB2	A:95:LEU:HD23	0.502
98	A:121:LEU:HD22	A:300:TYR:CD1	0.501
98	A:38:MET:HE3	A:94:VAL:CG1	0.496
98	A:175:PHE:CE1	A:229:PHE:CE2	0.485
98	A:410:LEU:HD23	A:453:LYS:HE2	0.478
98	A:139:MET:HE2	A:222:PRO:HG2	0.476
98	A:78:ILE:HG13	A:98:THR:HG22	0.474
98	A:61:LYS:HE3	A:64:GLY:HA2	0.469
98	A:14:ILE:HG12	A:78:ILE:HG22	0.463
98	A:415:PHE:CE1	A:419:GLU:HG2	0.455
98	A:11:MET:HE1	A:30:ILE:HG13	0.454
98	A:38:MET:HE3	A:94:VAL:HG12	0.454
98	A:185:PHE:CD1	A:237:VAL:HG23	0.450
98	A:203:THR:HG22	A:227:ARG:HH22	0.449
98	A:41:VAL:HG13	A:95:LEU:HD13	0.444
98	A:120:VAL:HG22	A:175:PHE:CD2	0.439
98	A:121:LEU:HD23	A:296:LEU:HD21	0.439
98	A:40:VAL:HG13	A:123:SER:HA	0.435
98	A:258:LEU:HD21	A:262:PHE:CD1	0.434
98	A:553:LYS:HE2	A:553:LYS:N	0.434

Model ID	Atom-1	Atom-2	Clash overlap (Å)
98	A:78:ILE:CG1	A:98:THR:HG22	0.433
98	A:296:LEU:C	A:296:LEU:HD23	0.433
98	A:123:SER:O	A:280:LYS:HE3	0.430
98	A:415:PHE:HA	A:443:LEU:HD11	0.422
98	A:483:THR:HG23	A:486:GLU:H	0.421
98	A:566:GLN:C	A:566:GLN:HE21	0.420
98	A:309:LEU:HA	A:310:PRO:HD2	0.417
98	A:185:PHE:CZ	A:201:TYR:CZ	0.410
98	A:14:ILE:HA	A:22:MET:O	0.402
98	A:41:VAL:CG1	A:95:LEU:HD13	0.401
99	A:237:VAL:HG22	A:238:PHE:N	0.520
99	A:230:PHE:CD2	A:231:PRO:HD2	0.517
99	A:44:VAL:HG21	A:126:PHE:CZ	0.503
99	A:224:LEU:C	A:224:LEU:HD13	0.493
99	A:328:VAL:HG21	A:368:PHE:CE1	0.476
99	A:345:LEU:H	A:345:LEU:HD23	0.437
99	A:505:MET:HE2	A:506:LEU:CD2	0.437
99	A:230:PHE:CG	A:231:PRO:HD2	0.434
99	A:365:ILE:HA	A:368:PHE:HB2	0.434
99	A:135:ASN:ND2	A:136:GLN:H	0.434
99	A:447:TYR:CE2	A:453:LYS:HE3	0.430
99	A:389:GLU:CD	A:392:ARG:HD3	0.422
99	A:250:LEU:HA	A:250:LEU:HD23	0.421

Model ID	Atom-1	Atom-2	Clash overlap (Å)
99	A:8:THR:HG22	A:31:LEU:HD13	0.415
100	A:464:TYR:CZ	A:468:LYS:HE3	0.545
100	A:32:SER:HB3	A:294:GLU:HG2	0.515
100	A:322:ILE:N	A:322:ILE:HD12	0.484
100	A:163:ASN:H	A:163:ASN:ND2	0.483
100	A:292:ARG:HA	A:292:ARG:NE	0.470
100	A:226:ILE:HA	A:229:PHE:CZ	0.468
100	A:241:PRO:HA	A:262:PHE:CD1	0.468
100	A:36:GLN:CD	A:36:GLN:H	0.462
100	A:259:ASP:HA	A:260:PRO:HD3	0.445
100	A:391:LYS:HA	A:391:LYS:HD2	0.438
100	A:443:LEU:C	A:443:LEU:HD23	0.430
100	A:489:ILE:H	A:489:ILE:HD12	0.413
100	A:254:GLN:C	A:256:GLU:H	0.405
101	A:120:VAL:HG11	A:175:PHE:CE2	0.664
101	A:177:ASP:HA	A:230:PHE:CE2	0.595
101	A:249:GLN:HE21	A:581:THR:CG2	0.573
101	A:411:LEU:C	A:411:LEU:HD13	0.540
101	A:11:MET:HG3	A:11:MET:O	0.494
101	A:65:PHE:CG	A:66:SER:N	0.461
101	A:416:SER:N	A:417:PRO:HD2	0.460
101	A:433:TYR:C	A:433:TYR:CD1	0.442
101	A:295:SER:HA	A:298:LEU:HB3	0.429

Model ID	Atom-1	Atom-2	Clash overlap (Å)
101	A:357:HIS:CG	A:392:ARG:HD3	0.424
101	A:93:LEU:HD22	A:274:PHE:CE2	0.422
101	A:461:LEU:C	A:461:LEU:HD13	0.410
101	A:65:PHE:CD1	A:66:SER:N	0.408
102	A:128:TYR:CE1	A:180:TRP:CH2	0.540
102	A:492:GLU:OE1	A:495:LYS:HE2	0.489
102	A:40:VAL:HG23	A:94:VAL:HG13	0.487
102	A:531:LEU:C	A:531:LEU:HD13	0.455
102	A:296:LEU:N	A:296:LEU:HD12	0.453
102	A:52:SER:HB2	A:66:SER:HB2	0.452
102	A:421:GLU:OE1	A:439:LYS:HE2	0.452
102	A:345:LEU:HA	A:346:PRO:HA	0.448
102	A:141:GLN:HA	A:141:GLN:NE2	0.421
103	A:88:LYS:HE2	A:91:HIS:CE1	0.580
103	A:116:PHE:CE1	A:148:LEU:HD13	0.557
103	A:11:MET:HE3	A:30:ILE:CD1	0.521
103	A:448:TYR:C	A:448:TYR:CD2	0.481
103	A:513:ASN:HA	A:516:MET:HE3	0.479
103	A:128:TYR:C	A:128:TYR:CD2	0.452
103	A:175:PHE:CG	A:176:PRO:HD2	0.437
103	A:416:SER:HB3	A:417:PRO:HD3	0.432
103	A:79:TRP:CG	A:80:MET:N	0.427
103	A:332:ILE:HD13	A:332:ILE:HG21	0.403

Model ID	Atom-1	Atom-2	Clash overlap (Å)
104	A:414:ILE:HD11	A:446:LYS:HE3	0.583
104	A:126:PHE:CD1	A:178:PHE:CE2	0.525
104	A:293:LEU:H	A:293:LEU:HD22	0.515
104	A:202:LEU:HD11	A:233:LYS:HD3	0.510
104	A:411:LEU:HA	A:414:ILE:HG22	0.509
104	A:406:ARG:HH21	A:450:GLU:CD	0.498
104	A:86:PRO:HD2	A:93:LEU:HD12	0.462
104	A:339:MET:HE1	A:357:HIS:CD2	0.443
104	A:381:GLN:CD	A:381:GLN:H	0.443
104	A:552:LEU:C	A:552:LEU:CD2	0.441
104	A:146:THR:HA	A:229:PHE:CZ	0.435
104	A:241:PRO:HB3	A:262:PHE:CD1	0.433
104	A:87:LYS:HB2	A:274:PHE:CE2	0.415
104	A:301:VAL:HA	A:304:ILE:HG22	0.415
104	A:407:CYS:SG	A:457:ALA:HA	0.410
104	A:548:ARG:HA	A:548:ARG:NE	0.408
104	A:46:LEU:H	A:46:LEU:HD22	0.404
104	A:171:PHE:CE1	A:229:PHE:CE1	0.403
104	A:345:LEU:HD22	A:398:GLN:HG3	0.403
104	A:146:THR:HA	A:229:PHE:CE1	0.401
105	A:53:TYR:CD2	A:250:LEU:HD23	0.512
105	A:403:SER:HB2	A:455:ILE:HG22	0.430
105	A:376:VAL:O	A:379:LEU:HD23	0.425

Model ID	Atom-1	Atom-2	Clash overlap (Å)
105	A:79:TRP:CD2	A:80:MET:HB3	0.417
105	A:85:HIS:HA	A:86:PRO:HD3	0.415
105	A:177:ASP:CB	A:276:ASN:HD21	0.403
106	A:61:LYS:HE2	A:81:TRP:CZ2	0.537
106	A:347:THR:HG22	A:349:SER:H	0.443
107	A:320:ALA:HB1	A:374:LYS:HE2	0.512
107	A:418:LEU:N	A:418:LEU:HD12	0.512
107	A:339:MET:HG2	A:356:LEU:HD21	0.502
107	A:165:VAL:O	A:165:VAL:HG12	0.489
107	A:539:ARG:HD2	A:539:ARG:O	0.464
107	A:61:LYS:HE2	A:81:TRP:CZ2	0.451
107	A:418:LEU:H	A:418:LEU:HD12	0.431
107	A:335:TYR:CD1	A:391:LYS:HE3	0.426
107	A:416:SER:HB2	A:417:PRO:HD3	0.426
107	A:450:GLU:HA	A:451:PRO:HD3	0.426
107	A:357:HIS:CD2	A:392:ARG:HD3	0.420
107	A:469:GLU:HA	A:469:GLU:OE2	0.412
107	A:224:LEU:C	A:224:LEU:HD23	0.407
107	A:453:LYS:HB2	A:453:LYS:HE2	0.406
107	A:242:VAL:HG22	A:243:HIS:N	0.403
108	A:174:PHE:CZ	A:280:LYS:HE3	0.562
108	A:435:LEU:C	A:435:LEU:HD23	0.556
108	A:435:LEU:O	A:435:LEU:HD23	0.524

Model ID	Atom-1	Atom-2	Clash overlap (Å)
108	A:68:GLY:H	A:74:HIS:CE1	0.497
108	A:165:VAL:O	A:165:VAL:HG12	0.491
108	A:162:GLU:HA	A:166:GLU:HB3	0.457
108	A:170:ASP:O	A:173:SER:HB2	0.449
108	A:185:PHE:CZ	A:187:LEU:HB2	0.438
108	A:420:GLU:HA	A:423:LYS:HE2	0.431
108	A:321:GLN:CD	A:321:GLN:H	0.419
108	A:415:PHE:CD1	A:468:LYS:HE3	0.418
108	A:152:ILE:HG23	A:153:ARG:O	0.415
108	A:476:LEU:H	A:476:LEU:HD12	0.414
108	A:528:LEU:HA	A:528:LEU:HD13	0.406
109	A:174:PHE:CZ	A:280:LYS:HE3	0.538
109	A:321:GLN:CD	A:321:GLN:H	0.536
109	A:126:PHE:CE1	A:178:PHE:HA	0.534
109	A:93:LEU:C	A:93:LEU:HD23	0.514
109	A:174:PHE:CE1	A:280:LYS:HE3	0.507
109	A:10:PRO:HA	A:79:TRP:CH2	0.491
109	A:30:ILE:H	A:30:ILE:HD12	0.483
109	A:10:PRO:HA	A:79:TRP:CZ2	0.470
109	A:68:GLY:H	A:74:HIS:CE1	0.462
109	A:46:LEU:HD11	A:131:ILE:HD12	0.452
109	A:13:LEU:O	A:13:LEU:HD23	0.449
109	A:342:LYS:HE2	A:360:SER:OG	0.419

Model ID	Atom-1	Atom-2	Clash overlap (Å)
109	A:422:VAL:HA	A:475:ILE:HD12	0.414
109	A:30:ILE:N	A:30:ILE:HD12	0.408
109	A:444:LYS:HZ3	A:497:GLU:CD	0.402
110	A:208:LEU:N	A:208:LEU:HD12	0.633
110	A:295:SER:O	A:299:THR:HG23	0.629
110	A:208:LEU:H	A:208:LEU:HD12	0.551
110	A:67:LEU:H	A:67:LEU:HD22	0.517
110	A:440:LEU:C	A:440:LEU:HD13	0.509
110	A:241:PRO:HB3	A:262:PHE:CE1	0.500
110	A:384:LEU:C	A:384:LEU:HD13	0.495
110	A:82:CYS:SG	A:92:ILE:HG13	0.462
110	A:560:LEU:HD13	A:563:GLU:HG3	0.438
110	A:214:GLN:O	A:218:THR:HG23	0.416
110	A:384:LEU:O	A:384:LEU:HD13	0.405
111	A:21:LEU:HD13	A:114:TRP:CE3	0.541
111	A:531:LEU:C	A:531:LEU:HD13	0.518
111	A:411:LEU:HD12	A:464:TYR:CG	0.498
111	A:169:ALA:HA	A:172:VAL:HG12	0.471
111	A:509:MET:SD	A:512:LYS:HE3	0.464
111	A:569:SER:HA	A:572:MET:HE3	0.446
111	A:404:SER:HA	A:460:ILE:CD1	0.445
111	A:59:ALA:HB2	A:95:LEU:HG	0.425
111	A:443:LEU:C	A:443:LEU:HD23	0.419

Model ID	Atom-1	Atom-2	Clash overlap (Å)
111	A:339:MET:SD	A:395:PHE:CZ	0.411
111	A:38:MET:HE2	A:94:VAL:HG11	0.408
112	A:68:GLY:H	A:74:HIS:CE1	0.633
112	A:485:LYS:HE3	A:489:ILE:HD11	0.591
112	A:207:LYS:HE3	A:207:LYS:N	0.438
112	A:175:PHE:CG	A:176:PRO:HD2	0.425
112	A:224:LEU:C	A:224:LEU:HD13	0.425
112	A:40:VAL:HG13	A:124:SER:H	0.408
112	A:531:LEU:C	A:531:LEU:HD13	0.403
113	A:80:MET:H	A:96:LEU:HA	0.587
113	A:413:VAL:HA	A:504:LYS:HE3	0.571
113	A:393:ASP:O	A:397:LYS:HE3	0.555
113	A:561:LEU:C	A:561:LEU:HD13	0.543
113	A:416:SER:OG	A:504:LYS:HE2	0.531
113	A:79:TRP:CZ3	A:80:MET:HE2	0.516
113	A:40:VAL:HG13	A:124:SER:H	0.511
113	A:528:LEU:C	A:528:LEU:HD13	0.471
113	A:47:TYR:CE1	A:73:SER:HA	0.470
113	A:57:LYS:HA	A:57:LYS:HE2	0.459
113	A:230:PHE:CD2	A:231:PRO:HD2	0.450
113	A:446:LYS:HA	A:446:LYS:HE2	0.438
113	A:79:TRP:HA	A:80:MET:CB	0.429
113	A:443:LEU:C	A:443:LEU:HD23	0.421

Model ID	Atom-1	Atom-2	Clash overlap (Å)
113	A:298:LEU:C	A:298:LEU:HD23	0.405
113	A:453:LYS:HB3	A:453:LYS:HE2	0.402
114	A:88:LYS:HE3	A:91:HIS:CD2	0.628
114	A:116:PHE:CZ	A:145:VAL:HA	0.614
114	A:242:VAL:HG22	A:243:HIS:H	0.554
114	A:548:ARG:HA	A:548:ARG:HE	0.535
114	A:548:ARG:HA	A:548:ARG:NE	0.518
114	A:242:VAL:HG22	A:243:HIS:N	0.491
114	A:179:VAL:HG23	A:234:LYS:HB3	0.472
114	A:482:LEU:C	A:482:LEU:HD12	0.464
114	A:440:LEU:HA	A:440:LEU:HD12	0.425
114	A:448:TYR:CZ	A:451:PRO:HB3	0.425
114	A:476:LEU:HD22	A:481:THR:HG21	0.416
114	A:321:GLN:NE2	A:374:LYS:HE2	0.405
114	A:448:TYR:C	A:450:GLU:H	0.404
115	A:480:GLN:HB3	A:487:LYS:HE2	0.595
115	A:28:LEU:H	A:28:LEU:HD22	0.528
115	A:423:LYS:HA	A:478:THR:HG21	0.523
115	A:201:TYR:CD1	A:237:VAL:HG11	0.500
115	A:47:TYR:CE1	A:73:SER:HB2	0.450
115	A:146:THR:HG22	A:229:PHE:CG	0.429
115	A:116:PHE:CZ	A:145:VAL:HA	0.411
115	A:89:PRO:C	A:91:HIS:H	0.407

Model ID	Atom-1	Atom-2	Clash overlap (Å)
115	A:552:LEU:C	A:552:LEU:HD23	0.401
116	A:40:VAL:HG13	A:123:SER:HA	0.511
116	A:10:PRO:HA	A:79:TRP:CH2	0.479
116	A:204:TYR:CD1	A:207:LYS:HE3	0.476
116	A:224:LEU:C	A:224:LEU:HD13	0.473
116	A:402:ALA:HA	A:406:ARG:HG2	0.429
116	A:370:ARG:HG3	A:380:PHE:CZ	0.424
116	A:557:GLN:OE1	A:573:LYS:HE3	0.422
116	A:202:LEU:HD21	A:233:LYS:HG3	0.418
116	A:242:VAL:HG22	A:243:HIS:H	0.409
116	A:204:TYR:CE1	A:207:LYS:HE3	0.406
116	A:81:TRP:HD1	A:95:LEU:HD13	0.401
117	A:278:LYS:HE3	A:281:THR:CG2	0.487
117	A:221:LEU:C	A:221:LEU:HD23	0.482
117	A:242:VAL:HG11	A:250:LEU:HD13	0.470
117	A:197:THR:HB	A:198:PRO:CD	0.462
117	A:65:PHE:CD2	A:79:TRP:CD1	0.430
117	A:262:PHE:CZ	A:266:VAL:HG11	0.428
117	A:484:GLU:O	A:487:LYS:HE3	0.427
117	A:41:VAL:HA	A:125:THR:HB	0.419
117	A:96:LEU:C	A:96:LEU:HD23	0.419
117	A:181:THR:HA	A:236:PHE:O	0.403
118	A:260:PRO:HA	A:263:VAL:HG12	0.465

Model ID	Atom-1	Atom-2	Clash overlap (Å)
118	A:567:LYS:HE2	A:571:ILE:HD11	0.452
118	A:122:LEU:O	A:280:LYS:HE2	0.438
119	A:411:LEU:HD11	A:464:TYR:CD2	0.494
119	A:58:LEU:HD13	A:270:CYS:SG	0.490
119	A:344:GLN:HB3	A:512:LYS:HE3	0.477
119	A:419:GLU:HG2	A:423:LYS:HE3	0.452
119	A:415:PHE:CD1	A:464:TYR:CE1	0.423
119	A:462:GLN:O	A:466:LYS:HE3	0.420
119	A:85:HIS:HA	A:86:PRO:HD3	0.414
120	A:57:LYS:HE3	A:266:VAL:HG21	0.708
120	A:174:PHE:CZ	A:312:MET:HE1	0.573
120	A:57:LYS:HE3	A:266:VAL:CG2	0.556
120	A:79:TRP:CG	A:80:MET:H	0.499
120	A:510:GLN:HA	A:513:ASN:ND2	0.461
120	A:410:LEU:CD2	A:453:LYS:HE3	0.403
121	A:46:LEU:H	A:46:LEU:HD23	0.582
121	A:241:PRO:HB2	A:258:LEU:HD11	0.567
121	A:357:HIS:CD2	A:392:ARG:HD3	0.521
121	A:314:ASN:HA	A:317:LEU:HD23	0.485
121	A:34:ILE:HG13	A:36:GLN:HE21	0.484
121	A:464:TYR:CE1	A:468:LYS:HE2	0.457
121	A:174:PHE:CZ	A:280:LYS:HE3	0.450
121	A:259:ASP:HA	A:260:PRO:HD3	0.442

Model ID	Atom-1	Atom-2	Clash overlap (Å)
121	A:387:GLN:O	A:390:LYS:HB2	0.426
121	A:365:ILE:HA	A:368:PHE:CE1	0.425
121	A:321:GLN:CD	A:321:GLN:N	0.416
121	A:482:LEU:H	A:482:LEU:HD23	0.407
121	A:321:GLN:CD	A:321:GLN:H	0.404
121	A:464:TYR:CE1	A:468:LYS:CE	0.403
121	A:476:LEU:HB3	A:487:LYS:HE2	0.402
122	A:135:ASN:ND2	A:136:GLN:H	0.555
122	A:542:LEU:O	A:542:LEU:HD13	0.545
122	A:180:TRP:CD1	A:202:LEU:HD11	0.466
122	A:520:LYS:HE2	A:524:TYR:OH	0.459
122	A:570:ARG:HA	A:573:LYS:HG3	0.409
122	A:576:ILE:HA	A:576:ILE:HD13	0.408
122	A:39:VAL:HG13	A:93:LEU:HD12	0.402
123	A:426:ILE:HG13	A:491:VAL:HG13	0.504
123	A:483:THR:HG22	A:486:GLU:HB2	0.500
123	A:561:LEU:C	A:561:LEU:HD13	0.452
123	A:440:LEU:C	A:440:LEU:HD13	0.444
123	A:13:LEU:C	A:13:LEU:HD13	0.442
123	A:506:LEU:C	A:506:LEU:CD1	0.426
123	A:442:ASP:O	A:446:LYS:HE2	0.416
123	A:506:LEU:C	A:506:LEU:HD13	0.414
123	A:332:ILE:HA	A:332:ILE:HD12	0.406

Model ID	Atom-1	Atom-2	Clash overlap (Å)
123	A:342:LYS:HB3	A:356:LEU:HD21	0.405
123	A:134:ILE:HD11	A:139:MET:HE3	0.400
124	A:82:CYS:HB2	A:94:VAL:HG23	0.628
124	A:78:ILE:HG12	A:98:THR:HG22	0.565
124	A:384:LEU:C	A:384:LEU:HD13	0.505
124	A:23:ALA:O	A:25:PRO:HD3	0.484
124	A:221:LEU:HB2	A:222:PRO:CD	0.429
124	A:221:LEU:N	A:222:PRO:HD2	0.424
124	A:83:VAL:HG22	A:84:PRO:HD2	0.423
124	A:224:LEU:C	A:224:LEU:HD23	0.416
124	A:274:PHE:C	A:274:PHE:CD1	0.416
124	A:171:PHE:CZ	A:175:PHE:CD2	0.409
124	A:155:LYS:HB3	A:155:LYS:HE3	0.404
125	A:324:ASN:HD22	A:375:ASP:HA	0.564
125	A:43:ILE:HD11	A:129:ASN:HD21	0.561
125	A:74:HIS:O	A:76:LYS:HE2	0.550
125	A:152:ILE:HD11	A:174:PHE:CG	0.485
125	A:79:TRP:CG	A:80:MET:H	0.456
125	A:143:TYR:CE2	A:146:THR:HG21	0.453
125	A:459:GLU:CD	A:459:GLU:H	0.419
126	A:528:LEU:C	A:528:LEU:HD13	0.573
126	A:241:PRO:HA	A:262:PHE:CD1	0.537
126	A:40:VAL:HG23	A:94:VAL:HG23	0.491

Model ID	Atom-1	Atom-2	Clash overlap (Å)
126	A:1:MET:HG3	A:2:ALA:N	0.488
126	A:263:VAL:HG13	A:264:GLN:N	0.487
126	A:241:PRO:HA	A:262:PHE:CG	0.485
126	A:334:HIS:HB3	A:363:GLU:HG3	0.482
126	A:400:GLN:HE21	A:456:GLN:NE2	0.479
126	A:411:LEU:HA	A:414:ILE:HG22	0.446
126	A:9:GLY:HA2	A:10:PRO:HD3	0.412
126	A:61:LYS:HE2	A:82:CYS:O	0.411
126	A:334:HIS:HB3	A:363:GLU:CG	0.404
126	A:288:VAL:HG22	A:293:LEU:HB2	0.402
126	A:414:ILE:HD13	A:414:ILE:HG21	0.400
127	A:175:PHE:CD2	A:176:PRO:HD2	0.481
127	A:543:LEU:C	A:543:LEU:HD13	0.469
127	A:414:ILE:HG23	A:415:PHE:CD2	0.446
127	A:65:PHE:CE2	A:79:TRP:CD1	0.427
128	A:242:VAL:HG22	A:243:HIS:N	0.495
128	A:80:MET:H	A:96:LEU:HA	0.489
128	A:559:GLN:NE2	A:566:GLN:HE21	0.486
128	A:62:LYS:HE2	A:251:GLU:O	0.477
128	A:4:GLU:HA	A:7:MET:SD	0.467
129	A:373:PHE:CZ	A:374:LYS:HE3	0.643
129	A:35:THR:HG22	A:291:PRO:HG2	0.470
129	A:53:TYR:C	A:53:TYR:CD1	0.461

Model ID	Atom-1	Atom-2	Clash overlap (Å)
129	A:58:LEU:HA	A:58:LEU:HD23	0.426
129	A:421:GLU:HA	A:424:ALA:HB3	0.421
129	A:46:LEU:H	A:46:LEU:HD22	0.410
129	A:455:ILE:H	A:455:ILE:HD12	0.409
129	A:156:SER:HB2	A:311:CYS:CB	0.403
129	A:416:SER:N	A:417:PRO:HD2	0.403
130	A:61:LYS:HE3	A:81:TRP:CZ2	0.590
130	A:174:PHE:CZ	A:280:LYS:HE2	0.526
130	A:521:GLU:HA	A:524:TYR:CD2	0.499
130	A:271:SER:HA	A:274:PHE:CE1	0.490
130	A:42:ALA:HB2	A:96:LEU:HB2	0.454
130	A:482:LEU:HA	A:482:LEU:HD23	0.447
130	A:5:ILE:HD11	A:7:MET:SD	0.436
130	A:148:LEU:C	A:148:LEU:HD13	0.428
130	A:174:PHE:CE2	A:280:LYS:HE2	0.425
130	A:183:ARG:HD2	A:238:PHE:CZ	0.424
130	A:294:GLU:CD	A:321:GLN:HE22	0.406
130	A:520:LYS:HE2	A:524:TYR:OH	0.405
131	A:324:ASN:HA	A:327:ALA:HB3	0.576
131	A:180:TRP:CD2	A:233:LYS:HE3	0.549
131	A:337:GLN:HE22	A:527:HIS:CE1	0.534
131	A:447:TYR:CD2	A:453:LYS:HE3	0.486
131	A:153:ARG:HB3	A:311:CYS:HB2	0.476

Model ID	Atom-1	Atom-2	Clash overlap (Å)
131	A:142:LEU:HD11	A:233:LYS:HE2	0.436
131	A:357:HIS:CD2	A:392:ARG:HB2	0.435
131	A:164:GLU:O	A:165:VAL:C	0.430
131	A:117:ALA:HB1	A:152:ILE:HD11	0.426
131	A:85:HIS:HA	A:86:PRO:HD3	0.421
131	A:143:TYR:CZ	A:146:THR:HG21	0.414
131	A:4:GLU:CD	A:4:GLU:N	0.412
131	A:104:VAL:O	A:104:VAL:HG12	0.402
132	A:96:LEU:C	A:96:LEU:HD23	0.531
132	A:492:GLU:HA	A:495:LYS:HE3	0.495
132	A:156:SER:HA	A:311:CYS:SG	0.483
132	A:407:CYS:HB3	A:460:ILE:HG21	0.477
132	A:128:TYR:CD1	A:180:TRP:CZ3	0.473
132	A:185:PHE:CZ	A:187:LEU:HD12	0.462
132	A:447:TYR:CD2	A:461:LEU:HD22	0.448
132	A:335:TYR:CE1	A:391:LYS:HG2	0.442
132	A:365:ILE:HD11	A:381:GLN:HE21	0.437
132	A:407:CYS:CB	A:460:ILE:HG21	0.417
132	A:443:LEU:HD23	A:446:LYS:HE3	0.414
132	A:85:HIS:HA	A:86:PRO:HD3	0.412
132	A:182:LEU:N	A:182:LEU:HD12	0.410
133	A:422:VAL:HG21	A:471:MET:HG2	0.491
133	A:418:LEU:N	A:418:LEU:HD12	0.488

Model ID	Atom-1	Atom-2	Clash overlap (Å)
133	A:141:GLN:CD	A:141:GLN:H	0.485
133	A:12:CYS:SG	A:76:LYS:HE3	0.454
133	A:6:HIS:CE1	A:92:ILE:HD12	0.449
133	A:43:ILE:HG23	A:97:ASP:HA	0.433
133	A:531:LEU:C	A:531:LEU:HD13	0.426
133	A:106:LYS:HB2	A:106:LYS:HE3	0.401
133	A:309:LEU:HA	A:309:LEU:HD13	0.400
134	A:291:PRO:HB2	A:322:ILE:HD12	0.666
134	A:414:ILE:HD12	A:446:LYS:HE2	0.588
134	A:391:LYS:HA	A:391:LYS:HE3	0.482
134	A:541:GLN:HA	A:544:LYS:HE2	0.476
134	A:182:LEU:HB2	A:237:VAL:HA	0.439
134	A:1:MET:HE2	A:61:LYS:HG3	0.437
134	A:443:LEU:O	A:443:LEU:HD13	0.422
134	A:509:MET:C	A:509:MET:SD	0.411
134	A:250:LEU:HD12	A:258:LEU:HD11	0.410
134	A:204:TYR:C	A:204:TYR:CD1	0.409
134	A:406:ARG:HH12	A:450:GLU:CD	0.407
135	A:317:LEU:O	A:317:LEU:HD13	0.592
135	A:556:GLU:HG3	A:573:LYS:HD3	0.487
135	A:46:LEU:HG	A:47:TYR:H	0.485
135	A:180:TRP:HE1	A:182:LEU:CD2	0.459
135	A:447:TYR:CD1	A:461:LEU:HD22	0.448

Model ID	Atom-1	Atom-2	Clash overlap (Å)
135	A:444:LYS:HE2	A:465:LEU:CD1	0.443
135	A:166:GLU:CD	A:166:GLU:H	0.422
135	A:208:LEU:H	A:208:LEU:HD12	0.421
135	A:441:GLN:OE1	A:445:LYS:HE2	0.415
135	A:475:ILE:HD13	A:475:ILE:HG21	0.407
136	A:469:GLU:CD	A:469:GLU:H	0.496
136	A:568:GLU:HG2	A:572:MET:HE2	0.486
136	A:178:PHE:H	A:230:PHE:HZ	0.438
136	A:271:SER:HA	A:274:PHE:CE1	0.426
136	A:431:GLY:HA2	A:433:TYR:CE1	0.424
136	A:206:LEU:HA	A:206:LEU:HD23	0.421
136	A:263:VAL:HA	A:266:VAL:HG12	0.420
136	A:6:HIS:CG	A:30:ILE:HG23	0.410
136	A:85:HIS:HA	A:86:PRO:HD3	0.406
137	A:422:VAL:HG21	A:471:MET:HE1	0.751
137	A:31:LEU:HA	A:34:ILE:HG22	0.515
137	A:447:TYR:CD2	A:453:LYS:HE3	0.497
137	A:537:ASN:HA	A:540:VAL:HG12	0.489
137	A:569:SER:HA	A:572:MET:HE3	0.477
137	A:446:LYS:HA	A:446:LYS:HE3	0.472
137	A:34:ILE:O	A:34:ILE:HG23	0.467
137	A:271:SER:HA	A:274:PHE:CE2	0.463
137	A:232:LYS:C	A:234:LYS:H	0.454

Model ID	Atom-1	Atom-2	Clash overlap (Å)
137	A:181:THR:HG22	A:236:PHE:CE1	0.451
137	A:242:VAL:HG13	A:247:LEU:HA	0.446
137	A:180:TRP:CD1	A:235:CYS:HB3	0.428
137	A:278:LYS:HA	A:278:LYS:HE2	0.427
137	A:20:ARG:HD3	A:305:SER:HB2	0.418
137	A:43:ILE:HG23	A:51:LYS:HE3	0.416
137	A:490:GLU:HA	A:490:GLU:OE2	0.405
137	A:44:VAL:HG22	A:45:GLY:H	0.403
137	A:35:THR:HB	A:583:MET:SD	0.402
137	A:139:MET:HE3	A:205:SER:CB	0.402
138	A:373:PHE:CG	A:374:LYS:N	0.488
138	A:13:LEU:HD22	A:78:ILE:HG22	0.464
138	A:197:THR:HB	A:198:PRO:CD	0.459
138	A:178:PHE:CD1	A:233:LYS:HE2	0.447
138	A:35:THR:HA	A:290:GLY:H	0.445
138	A:39:VAL:O	A:93:LEU:HD12	0.442
138	A:476:LEU:HD11	A:484:GLU:CD	0.435
138	A:41:VAL:HG23	A:125:THR:HB	0.427
138	A:6:HIS:CG	A:7:MET:N	0.420
138	A:101:LEU:HD12	A:102:GLY:N	0.413
138	A:34:ILE:O	A:34:ILE:HG23	0.408
139	A:339:MET:HE1	A:356:LEU:HD21	0.774
139	A:410:LEU:HD11	A:414:ILE:HD12	0.682

Model ID	Atom-1	Atom-2	Clash overlap (Å)
139	A:414:ILE:HD13	A:447:TYR:CE2	0.568
139	A:490:GLU:CD	A:493:ARG:HE	0.506
139	A:178:PHE:CD1	A:233:LYS:HE2	0.489
139	A:482:LEU:H	A:482:LEU:HD13	0.443
139	A:353:LEU:H	A:353:LEU:HD12	0.440
139	A:451:PRO:O	A:452:ARG:C	0.436
139	A:36:GLN:CD	A:36:GLN:H	0.420
139	A:328:VAL:HB	A:380:PHE:CD1	0.419
140	A:357:HIS:CE1	A:392:ARG:HE	0.509
140	A:464:TYR:CZ	A:468:LYS:HE2	0.493
140	A:373:PHE:CE2	A:374:LYS:HE2	0.463
140	A:560:LEU:HD21	A:570:ARG:HH21	0.444
140	A:79:TRP:HA	A:80:MET:CB	0.440
140	A:260:PRO:HA	A:263:VAL:HG12	0.433
140	A:16:ASN:CG	A:18:ASN:H	0.425
140	A:369:ILE:O	A:369:ILE:HG22	0.421
140	A:453:LYS:H	A:453:LYS:HD3	0.415
140	A:187:LEU:HG	A:189:LEU:H	0.411
140	A:447:TYR:O	A:450:GLU:HB2	0.411
140	A:46:LEU:HA	A:101:LEU:HB2	0.406
140	A:79:TRP:HA	A:80:MET:HB3	0.405
141	A:40:VAL:HG23	A:94:VAL:HG13	0.672
141	A:47:TYR:CG	A:48:ARG:N	0.510

Model ID	Atom-1	Atom-2	Clash overlap (Å)
141	A:323:GLU:O	A:326:ALA:HB3	0.486
141	A:292:ARG:NH2	A:315:ALA:HB1	0.449
141	A:354:LEU:C	A:354:LEU:HD23	0.436
141	A:552:LEU:N	A:552:LEU:HD22	0.415
142	A:38:MET:HE1	A:293:LEU:HD21	0.721
142	A:122:LEU:HD13	A:296:LEU:HD22	0.620
142	A:413:VAL:HG13	A:501:ALA:HB1	0.582
142	A:42:ALA:HB3	A:123:SER:HB2	0.556
142	A:80:MET:H	A:96:LEU:HA	0.533
142	A:407:CYS:HB3	A:460:ILE:HG21	0.521
142	A:135:ASN:ND2	A:137:GLN:HE22	0.501
142	A:460:ILE:HG23	A:461:LEU:N	0.496
142	A:317:LEU:HD23	A:320:ALA:HB3	0.487
142	A:451:PRO:O	A:453:LYS:HE3	0.482
142	A:350:LEU:HD13	A:455:ILE:HD13	0.480
142	A:61:LYS:HE3	A:62:LYS:O	0.469
142	A:292:ARG:HH22	A:296:LEU:CD1	0.467
142	A:114:TRP:CZ3	A:118:LEU:HB2	0.463
142	A:373:PHE:C	A:373:PHE:CD2	0.453
142	A:182:LEU:HD22	A:185:PHE:CD1	0.446
142	A:421:GLU:CG	A:426:ILE:HG21	0.440
142	A:353:LEU:CD2	A:399:ASN:HD22	0.434
142	A:350:LEU:HD13	A:455:ILE:CD1	0.432

Model ID	Atom-1	Atom-2	Clash overlap (Å)
142	A:96:LEU:HD13	A:122:LEU:HD23	0.431
142	A:185:PHE:CG	A:237:VAL:HG23	0.429
142	A:185:PHE:CD1	A:237:VAL:HG23	0.428
142	A:478:THR:O	A:479:ASP:C	0.428
142	A:80:MET:HG3	A:80:MET:O	0.426
142	A:353:LEU:HD11	A:395:PHE:CZ	0.425
142	A:413:VAL:CG1	A:501:ALA:HB1	0.423
142	A:52:SER:HB2	A:67:LEU:HD12	0.422
142	A:78:ILE:HG13	A:98:THR:HG22	0.417
142	A:353:LEU:HD23	A:399:ASN:HD22	0.417
142	A:421:GLU:HG2	A:426:ILE:HG21	0.414
142	A:142:LEU:C	A:144:TYR:N	0.411
142	A:350:LEU:HD11	A:399:ASN:CG	0.411
142	A:41:VAL:HG13	A:95:LEU:CD1	0.404
142	A:454:GLY:C	A:455:ILE:HD12	0.400
143	A:91:HIS:CE1	A:279:THR:HG21	0.600
143	A:357:HIS:CD2	A:392:ARG:HH21	0.532
143	A:528:LEU:C	A:528:LEU:HD13	0.487
143	A:465:LEU:C	A:465:LEU:HD13	0.477
143	A:464:TYR:CE2	A:468:LYS:HE3	0.459
143	A:262:PHE:CD2	A:265:GLN:HB2	0.458
143	A:91:HIS:C	A:92:ILE:HD12	0.451
143	A:380:PHE:C	A:380:PHE:CD2	0.420

Model ID	Atom-1	Atom-2	Clash overlap (Å)
143	A:406:ARG:HG3	A:406:ARG:HH11	0.415
143	A:435:LEU:N	A:435:LEU:HD12	0.410
143	A:208:LEU:C	A:208:LEU:HD23	0.407
143	A:47:TYR:CG	A:48:ARG:N	0.405
143	A:45:GLY:HA2	A:128:TYR:CE2	0.401
144	A:27:ALA:HA	A:30:ILE:HD12	0.496
144	A:420:GLU:OE2	A:423:LYS:HE3	0.479
144	A:271:SER:HA	A:274:PHE:CZ	0.439
144	A:118:LEU:HA	A:118:LEU:HD12	0.437
144	A:185:PHE:C	A:185:PHE:CD1	0.437
144	A:121:LEU:O	A:280:LYS:HE2	0.433
144	A:336:GLU:OE2	A:391:LYS:HE2	0.430
144	A:411:LEU:HD23	A:505:MET:SD	0.401
145	A:468:LYS:HA	A:468:LYS:HE3	0.577
145	A:125:THR:HG23	A:177:ASP:CG	0.508
145	A:531:LEU:C	A:531:LEU:HD13	0.468
145	A:40:VAL:HG13	A:124:SER:H	0.462
145	A:82:CYS:SG	A:94:VAL:HG23	0.449
145	A:46:LEU:H	A:46:LEU:HD22	0.447
145	A:565:PHE:CZ	A:567:LYS:HE2	0.447
145	A:43:ILE:HG22	A:55:MET:SD	0.422
145	A:125:THR:HG23	A:177:ASP:OD2	0.412
145	A:61:LYS:HE2	A:81:TRP:CE3	0.406

Model ID	Atom-1	Atom-2	Clash overlap (Å)
145	A:489:ILE:HA	A:489:ILE:HD13	0.405
145	A:302:ASN:OD1	A:374:LYS:HE3	0.401
146	A:269:PHE:CE2	A:273:ILE:HD11	0.628
146	A:362:ARG:HA	A:365:ILE:HD12	0.612
146	A:215:LYS:HA	A:215:LYS:HE3	0.554
146	A:271:SER:HA	A:274:PHE:CE2	0.501
146	A:52:SER:HB2	A:65:PHE:CE2	0.484
146	A:114:TRP:CD1	A:300:TYR:CE2	0.479
146	A:40:VAL:HG13	A:124:SER:H	0.473
146	A:271:SER:HA	A:274:PHE:CD2	0.467
146	A:389:GLU:CD	A:392:ARG:HE	0.435
146	A:379:LEU:H	A:379:LEU:HG	0.432
146	A:435:LEU:HD11	A:439:LYS:HE2	0.404
146	A:450:GLU:HA	A:451:PRO:HD3	0.400
147	A:46:LEU:H	A:46:LEU:HD22	0.503
147	A:11:MET:HA	A:11:MET:HE2	0.488
147	A:10:PRO:HA	A:79:TRP:CZ2	0.476
147	A:391:LYS:HA	A:391:LYS:HE2	0.473
147	A:14:ILE:HG22	A:23:ALA:HA	0.464
147	A:42:ALA:O	A:127:VAL:HG12	0.432
147	A:263:VAL:HA	A:266:VAL:HG12	0.428
147	A:464:TYR:CZ	A:468:LYS:HE3	0.423
147	A:143:TYR:HA	A:225:CYS:SG	0.420

Model ID	Atom-1	Atom-2	Clash overlap (Å)
147	A:422:VAL:HG23	A:475:ILE:HD11	0.418
147	A:13:LEU:HD23	A:27:ALA:HB1	0.407
147	A:59:ALA:CB	A:81:TRP:HE1	0.407
147	A:59:ALA:C	A:61:LYS:H	0.403
147	A:123:SER:HB3	A:125:THR:O	0.403
147	A:38:MET:HE1	A:290:GLY:H	0.402
148	A:44:VAL:HG11	A:116:PHE:CE1	0.506
148	A:38:MET:HE1	A:290:GLY:H	0.484
148	A:10:PRO:HA	A:79:TRP:CE2	0.467
148	A:521:GLU:HA	A:521:GLU:OE2	0.456
148	A:368:PHE:CD1	A:384:LEU:HD12	0.455
148	A:206:LEU:O	A:207:LYS:C	0.449
148	A:520:LYS:HA	A:523:SER:HB3	0.441
148	A:46:LEU:H	A:46:LEU:HD22	0.436
148	A:290:GLY:N	A:291:PRO:HD2	0.435
148	A:144:TYR:CD2	A:144:TYR:O	0.434
148	A:41:VAL:HG21	A:273:ILE:HG23	0.406
149	A:165:VAL:HG13	A:166:GLU:H	0.490
149	A:146:THR:HG22	A:225:CYS:SG	0.470
149	A:480:GLN:HA	A:480:GLN:NE2	0.416
149	A:208:LEU:C	A:208:LEU:HD23	0.414
149	A:197:THR:HA	A:198:PRO:HD3	0.411
150	A:165:VAL:HG13	A:166:GLU:H	0.609

Model ID	Atom-1	Atom-2	Clash overlap (Å)
150	A:221:LEU:HB3	A:222:PRO:HD3	0.601
150	A:459:GLU:HB3	A:505:MET:HE1	0.461
150	A:300:TYR:CD1	A:310:PRO:HB2	0.406
150	A:48:ARG:NH1	A:70:THR:HG22	0.406
150	A:464:TYR:CE1	A:468:LYS:HE3	0.402
151	A:410:LEU:O	A:414:ILE:HG22	0.454
151	A:185:PHE:CZ	A:187:LEU:HB2	0.448
151	A:76:LYS:HZ2	A:99:GLU:CD	0.442
151	A:242:VAL:HG21	A:246:LYS:HE2	0.438
151	A:345:LEU:HA	A:346:PRO:HA	0.436
151	A:239:ASP:CG	A:240:ARG:H	0.435
151	A:433:TYR:CD2	A:476:LEU:HD22	0.433
151	A:343:VAL:HG23	A:395:PHE:CE2	0.429
151	A:327:ALA:HB1	A:330:LYS:HE3	0.409
151	A:199:ASP:HA	A:235:CYS:HB3	0.406
152	A:89:PRO:CD	A:572:MET:HE3	0.533
152	A:345:LEU:HA	A:346:PRO:C	0.516
152	A:89:PRO:HD3	A:572:MET:HE3	0.515
152	A:59:ALA:HA	A:83:VAL:HG11	0.499
152	A:242:VAL:HG22	A:243:HIS:H	0.492
152	A:58:LEU:HG	A:95:LEU:HD21	0.474
152	A:40:VAL:HG13	A:123:SER:HA	0.473
152	A:242:VAL:HG22	A:243:HIS:N	0.456

Model ID	Atom-1	Atom-2	Clash overlap (Å)
152	A:44:VAL:HG11	A:126:PHE:CZ	0.432
152	A:188:ASP:C	A:190:GLU:H	0.424
152	A:414:ILE:C	A:417:PRO:HD2	0.422
152	A:120:VAL:HG22	A:126:PHE:CE2	0.420
152	A:468:LYS:HE3	A:468:LYS:N	0.414
152	A:361:GLU:CD	A:392:ARG:HH21	0.403
153	A:1:MET:HE3	A:2:ALA:H	0.641
153	A:7:MET:HE1	A:61:LYS:HG3	0.627
153	A:185:PHE:CD1	A:237:VAL:HG23	0.607
153	A:80:MET:HE3	A:94:VAL:HG21	0.561
153	A:177:ASP:HA	A:230:PHE:CZ	0.529
153	A:177:ASP:HA	A:230:PHE:CE2	0.508
153	A:183:ARG:HG3	A:238:PHE:CD1	0.507
153	A:59:ALA:HB2	A:81:TRP:HE1	0.493
153	A:299:THR:HG21	A:315:ALA:HA	0.482
153	A:180:TRP:HE1	A:182:LEU:HD13	0.480
153	A:309:LEU:H	A:309:LEU:HD13	0.480
153	A:380:PHE:C	A:380:PHE:CD2	0.478
153	A:185:PHE:HD1	A:237:VAL:HG23	0.476
153	A:234:LYS:HE3	A:272:TYR:CE2	0.475
153	A:146:THR:HG21	A:221:LEU:HG	0.465
153	A:80:MET:CE	A:94:VAL:HG21	0.461
153	A:49:THR:HG22	A:131:ILE:HB	0.453

Model ID	Atom-1	Atom-2	Clash overlap (Å)
153	A:1:MET:HE3	A:2:ALA:N	0.451
153	A:320:ALA:HB1	A:374:LYS:HG3	0.450
153	A:11:MET:HA	A:11:MET:HE2	0.442
153	A:223:ARG:C	A:223:ARG:HD3	0.442
153	A:171:PHE:CE1	A:229:PHE:CE1	0.435
153	A:220:ASN:HA	A:223:ARG:HD2	0.435
153	A:21:LEU:HD22	A:114:TRP:CG	0.434
153	A:436:PHE:CD1	A:475:ILE:HG21	0.431
153	A:253:LEU:HD21	A:257:GLU:HG2	0.429
153	A:2:ALA:HB2	A:86:PRO:HA	0.417
153	A:59:ALA:HA	A:83:VAL:HG11	0.415
153	A:339:MET:HE1	A:395:PHE:CD2	0.414
153	A:331:ALA:HA	A:367:VAL:HG21	0.411
153	A:436:PHE:HA	A:439:LYS:HB2	0.411
153	A:38:MET:HE1	A:293:LEU:HD21	0.409
153	A:447:TYR:CE2	A:453:LYS:HD3	0.407
153	A:13:LEU:HD22	A:27:ALA:HB1	0.405
153	A:91:HIS:CE1	A:279:THR:HG21	0.401
153	A:238:PHE:CZ	A:262:PHE:CZ	0.400
154	A:543:LEU:C	A:543:LEU:HD13	0.611
154	A:528:LEU:C	A:528:LEU:HD13	0.528
154	A:338:GLN:CD	A:342:LYS:HE3	0.480
154	A:453:LYS:H	A:453:LYS:HD3	0.455

Model ID	Atom-1	Atom-2	Clash overlap (Å)
154	A:349:SER:HB3	A:511:ARG:HE	0.452
154	A:565:PHE:CE1	A:569:SER:HB2	0.425
154	A:114:TRP:CZ3	A:304:ILE:HD13	0.415
154	A:223:ARG:HA	A:226:ILE:HG22	0.402
155	A:342:LYS:HD2	A:356:LEU:HD13	0.662
155	A:13:LEU:HD13	A:14:ILE:HG23	0.660
155	A:224:LEU:C	A:224:LEU:HD13	0.583
155	A:444:LYS:HE3	A:448:TYR:CE1	0.520
155	A:46:LEU:CD1	A:46:LEU:H	0.451
155	A:482:LEU:HD22	A:487:LYS:HB3	0.431
155	A:127:VAL:HB	A:179:VAL:HG13	0.428
155	A:194:GLN:CD	A:195:PRO:HD2	0.428
155	A:204:TYR:CD1	A:204:TYR:N	0.424
155	A:226:ILE:O	A:233:LYS:HE3	0.418
155	A:430:PRO:C	A:432:GLY:H	0.417
155	A:139:MET:HA	A:142:LEU:HB3	0.415
155	A:441:GLN:HE22	A:494:VAL:HG23	0.414
156	A:567:LYS:HE3	A:571:ILE:HD11	0.627
156	A:373:PHE:CE2	A:374:LYS:HE3	0.490
156	A:95:LEU:C	A:95:LEU:HD13	0.437
156	A:339:MET:HG2	A:356:LEU:HD23	0.426
156	A:531:LEU:C	A:531:LEU:HD13	0.408
156	A:230:PHE:CZ	A:232:LYS:HB2	0.406

Model ID	Atom-1	Atom-2	Clash overlap (Å)
157	A:46:LEU:H	A:46:LEU:HD13	0.683
157	A:541:GLN:HA	A:544:LYS:HE3	0.547
157	A:444:LYS:HE3	A:448:TYR:CZ	0.496
157	A:164:GLU:O	A:165:VAL:HG22	0.450
157	A:46:LEU:CD1	A:46:LEU:H	0.446
157	A:47:TYR:CG	A:48:ARG:N	0.442
157	A:378:HIS:HB2	A:382:LYS:HE3	0.436
157	A:451:PRO:O	A:452:ARG:C	0.434
157	A:175:PHE:CD1	A:176:PRO:HD2	0.424
157	A:453:LYS:CD	A:453:LYS:H	0.411
157	A:39:VAL:HG13	A:93:LEU:HD13	0.408
158	A:6:HIS:CE1	A:555:GLN:HE22	0.500
158	A:350:LEU:H	A:350:LEU:HD23	0.500
158	A:57:LYS:HA	A:57:LYS:HE2	0.499
158	A:444:LYS:HE2	A:497:GLU:OE2	0.484
158	A:342:LYS:HE3	A:363:GLU:HG2	0.476
158	A:6:HIS:H	A:7:MET:HE3	0.464
158	A:504:LYS:HE3	A:507:HIS:HB2	0.450
158	A:178:PHE:CZ	A:233:LYS:HE2	0.433
158	A:116:PHE:CE2	A:120:VAL:HG23	0.423
158	A:400:GLN:O	A:403:SER:HB3	0.416
158	A:71:VAL:O	A:71:VAL:HG22	0.411
158	A:255:ASP:HA	A:258:LEU:HB3	0.402

Model ID	Atom-1	Atom-2	Clash overlap (Å)
159	A:57:LYS:HA	A:57:LYS:HE3	0.697
159	A:317:LEU:C	A:317:LEU:HD13	0.603
159	A:542:LEU:HD13	A:546:GLN:HE22	0.566
159	A:336:GLU:HG3	A:391:LYS:HE2	0.508
159	A:336:GLU:HG3	A:391:LYS:CE	0.445
159	A:114:TRP:NE1	A:304:ILE:HG21	0.406
160	A:456:GLN:CD	A:456:GLN:H	0.537
160	A:342:LYS:HE2	A:359:ASP:CG	0.496
160	A:178:PHE:CG	A:233:LYS:HE2	0.476
160	A:335:TYR:CZ	A:388:LEU:HD23	0.472
160	A:320:ALA:HB3	A:373:PHE:CZ	0.461
160	A:228:LYS:HG3	A:229:PHE:CZ	0.442
160	A:134:ILE:O	A:134:ILE:HG23	0.437
160	A:38:MET:HE1	A:293:LEU:HD22	0.430
160	A:453:LYS:HB2	A:504:LYS:HE2	0.430
160	A:74:HIS:CE1	A:75:THR:HG23	0.428
160	A:542:LEU:C	A:542:LEU:HD12	0.428
160	A:240:ARG:HA	A:241:PRO:HD3	0.418
160	A:126:PHE:CZ	A:178:PHE:CD2	0.405
160	A:311:CYS:HB3	A:314:ASN:HB2	0.401
161	A:262:PHE:C	A:262:PHE:CD1	0.492
161	A:49:THR:HG22	A:131:ILE:HG22	0.418
162	A:464:TYR:CZ	A:468:LYS:HE3	0.555

Model ID	Atom-1	Atom-2	Clash overlap (Å)
162	A:238:PHE:CZ	A:262:PHE:HB2	0.497
162	A:197:THR:HB	A:198:PRO:HD2	0.476
162	A:49:THR:HB	A:51:LYS:HE3	0.454
162	A:464:TYR:CE1	A:468:LYS:HE3	0.448
162	A:531:LEU:C	A:531:LEU:HD13	0.435
162	A:177:ASP:HB3	A:230:PHE:CZ	0.424
162	A:426:ILE:HA	A:426:ILE:HD12	0.424
162	A:30:ILE:H	A:30:ILE:HD12	0.411
163	A:141:GLN:HA	A:143:TYR:CE2	0.433
163	A:116:PHE:C	A:116:PHE:CD2	0.425
163	A:544:LYS:HA	A:544:LYS:HE2	0.417
163	A:436:PHE:CE2	A:475:ILE:HD12	0.415
163	A:262:PHE:C	A:262:PHE:CD1	0.405
163	A:87:LYS:HE3	A:274:PHE:CD1	0.404
164	A:365:ILE:HA	A:368:PHE:CE2	0.580
164	A:31:LEU:HD22	A:80:MET:HE1	0.559
164	A:282:LEU:HD23	A:319:LEU:HD22	0.525
164	A:286:ILE:HG21	A:319:LEU:HD21	0.478
164	A:14:ILE:HG22	A:23:ALA:HA	0.473
164	A:136:GLN:CD	A:136:GLN:H	0.453
164	A:68:GLY:H	A:74:HIS:CE1	0.449
164	A:447:TYR:C	A:447:TYR:CD1	0.448
164	A:46:LEU:CD1	A:131:ILE:HG22	0.428

Model ID	Atom-1	Atom-2	Clash overlap (Å)
164	A:134:ILE:HD12	A:138:ALA:HB3	0.422
164	A:164:GLU:O	A:165:VAL:HG22	0.414
164	A:319:LEU:HD23	A:323:GLU:HG2	0.414
164	A:411:LEU:C	A:411:LEU:HD13	0.405
165	A:410:LEU:O	A:414:ILE:HG22	0.621
165	A:346:PRO:HG3	A:402:ALA:HB1	0.552
165	A:175:PHE:CD2	A:176:PRO:HD2	0.547
165	A:174:PHE:CE1	A:280:LYS:HE2	0.544
165	A:523:SER:HA	A:526:GLU:HB3	0.525
165	A:407:CYS:SG	A:460:ILE:HG21	0.520
165	A:511:ARG:HH12	A:515:GLN:NE2	0.518
165	A:38:MET:HE2	A:92:ILE:HG21	0.509
165	A:178:PHE:HB3	A:230:PHE:CD1	0.500
165	A:14:ILE:HG22	A:23:ALA:HA	0.486
165	A:534:LYS:HA	A:534:LYS:HE2	0.484
165	A:314:ASN:N	A:314:ASN:HD22	0.483
165	A:110:GLN:CD	A:110:GLN:H	0.481
165	A:38:MET:SD	A:293:LEU:HD21	0.478
165	A:258:LEU:HD21	A:262:PHE:CD1	0.472
165	A:452:ARG:CZ	A:508:GLU:HB2	0.470
165	A:146:THR:HG22	A:225:CYS:HB2	0.468
165	A:343:VAL:HG11	A:523:SER:HB3	0.461
165	A:178:PHE:HB3	A:230:PHE:CE1	0.458

Model ID	Atom-1	Atom-2	Clash overlap (Å)
165	A:198:PRO:HB2	A:235:CYS:SG	0.438
165	A:189:LEU:HD12	A:196:LEU:HB3	0.437
165	A:448:TYR:CD2	A:503:ALA:HB1	0.432
165	A:346:PRO:HD2	A:452:ARG:NH1	0.430
165	A:57:LYS:HG2	A:266:VAL:HG21	0.425
165	A:253:LEU:HD11	A:257:GLU:HB3	0.424
165	A:319:LEU:O	A:322:ILE:HG22	0.420
165	A:11:MET:HE1	A:26:GLU:HG2	0.417
165	A:84:PRO:HB2	A:89:PRO:CB	0.416
165	A:54:LEU:O	A:55:MET:C	0.413
165	A:122:LEU:HD12	A:296:LEU:HD23	0.408
165	A:324:ASN:HD21	A:373:PHE:HB3	0.404
165	A:14:ILE:HG22	A:23:ALA:CA	0.402
165	A:82:CYS:HB3	A:92:ILE:HD11	0.401
166	A:209:LYS:HE2	A:219:PHE:CZ	0.559
166	A:40:VAL:HG23	A:94:VAL:HG13	0.487
166	A:59:ALA:C	A:61:LYS:H	0.474
166	A:79:TRP:CD1	A:81:TRP:HB2	0.465
166	A:544:LYS:CE	A:544:LYS:HA	0.450
166	A:544:LYS:HA	A:544:LYS:HE2	0.448
166	A:443:LEU:C	A:443:LEU:HD23	0.422
166	A:400:GLN:HE21	A:456:GLN:NE2	0.420
166	A:410:LEU:C	A:410:LEU:HD23	0.406

Model ID	Atom-1	Atom-2	Clash overlap (Å)
166	A:388:LEU:HA	A:388:LEU:HD12	0.405
166	A:202:LEU:C	A:202:LEU:HD23	0.404
166	A:52:SER:H	A:67:LEU:HD13	0.400
166	A:209:LYS:HE2	A:219:PHE:CE1	0.400
167	A:202:LEU:HD22	A:235:CYS:HB2	0.635
167	A:202:LEU:HD21	A:233:LYS:HD2	0.600
167	A:57:LYS:HA	A:57:LYS:HE2	0.569
167	A:436:PHE:CZ	A:471:MET:HE2	0.568
167	A:436:PHE:CE2	A:471:MET:HE2	0.552
167	A:368:PHE:CE1	A:384:LEU:HG	0.547
167	A:411:LEU:HD11	A:464:TYR:CD1	0.545
167	A:139:MET:HE1	A:223:ARG:HB2	0.542
167	A:292:ARG:HH11	A:319:LEU:HD22	0.541
167	A:14:ILE:HD13	A:21:LEU:HD21	0.532
167	A:21:LEU:HD13	A:111:ASN:OD1	0.522
167	A:38:MET:HB3	A:288:VAL:HG13	0.506
167	A:81:TRP:CZ2	A:83:VAL:HB	0.503
167	A:78:ILE:HG12	A:98:THR:HG22	0.486
167	A:96:LEU:HD13	A:122:LEU:HD23	0.470
167	A:258:LEU:HD21	A:262:PHE:CD1	0.465
167	A:53:TYR:C	A:53:TYR:CD2	0.460
167	A:343:VAL:HG23	A:356:LEU:HD22	0.458
167	A:312:MET:HA	A:315:ALA:HB3	0.449

Model ID	Atom-1	Atom-2	Clash overlap (Å)
167	A:282:LEU:HB3	A:292:ARG:HH12	0.446
167	A:476:LEU:C	A:476:LEU:HD23	0.446
167	A:83:VAL:CG2	A:84:PRO:HD2	0.441
167	A:259:ASP:HA	A:260:PRO:HD3	0.441
167	A:328:VAL:HA	A:331:ALA:HB3	0.437
167	A:55:MET:SD	A:65:PHE:HB3	0.435
167	A:59:ALA:CB	A:81:TRP:HE1	0.433
167	A:81:TRP:C	A:94:VAL:HG23	0.429
167	A:21:LEU:HD23	A:114:TRP:CE2	0.428
167	A:65:PHE:CZ	A:79:TRP:HB3	0.419
167	A:83:VAL:HG23	A:84:PRO:HD2	0.416
167	A:382:LYS:C	A:382:LYS:HE2	0.412
167	A:153:ARG:HD3	A:156:SER:HA	0.410
167	A:161:ASN:C	A:163:ASN:H	0.410
167	A:280:LYS:HB3	A:288:VAL:HG11	0.409
167	A:78:ILE:HD13	A:118:LEU:HD23	0.401
168	A:407:CYS:HB3	A:460:ILE:HG21	0.700
168	A:59:ALA:HB2	A:81:TRP:HE1	0.630
168	A:317:LEU:O	A:320:ALA:HB3	0.614
168	A:81:TRP:C	A:94:VAL:HG23	0.603
168	A:7:MET:HE3	A:61:LYS:HG3	0.602
168	A:384:LEU:C	A:384:LEU:HD13	0.568
168	A:121:LEU:HD23	A:300:TYR:CD1	0.557

Model ID	Atom-1	Atom-2	Clash overlap (Å)
168	A:410:LEU:CD2	A:453:LYS:HE2	0.521
168	A:38:MET:HE1	A:40:VAL:HB	0.514
168	A:32:SER:HA	A:376:VAL:HG13	0.512
168	A:391:LYS:HE2	A:391:LYS:O	0.501
168	A:366:GLU:HA	A:369:ILE:HG22	0.500
168	A:85:HIS:CE1	A:87:LYS:HB3	0.488
168	A:410:LEU:HD22	A:453:LYS:HE2	0.482
168	A:80:MET:SD	A:94:VAL:HG21	0.480
168	A:11:MET:HB3	A:79:TRP:CZ3	0.468
168	A:7:MET:HE3	A:61:LYS:CG	0.465
168	A:274:PHE:C	A:274:PHE:CD1	0.452
168	A:384:LEU:C	A:384:LEU:CD1	0.449
168	A:122:LEU:O	A:280:LYS:HE2	0.444
168	A:179:VAL:HG22	A:180:TRP:N	0.440
168	A:38:MET:HE2	A:293:LEU:HD21	0.435
168	A:38:MET:HG2	A:92:ILE:CG2	0.434
168	A:416:SER:N	A:417:PRO:CD	0.431
168	A:407:CYS:HB3	A:460:ILE:HD13	0.425
168	A:131:ILE:HA	A:183:ARG:O	0.419
168	A:175:PHE:CD2	A:176:PRO:HD2	0.418
168	A:121:LEU:HD23	A:300:TYR:CE1	0.416
168	A:79:TRP:HE1	A:81:TRP:HB2	0.412
168	A:7:MET:CG	A:61:LYS:HE2	0.408

Model ID	Atom-1	Atom-2	Clash overlap (Å)
168	A:7:MET:HG3	A:61:LYS:HE2	0.406
168	A:78:ILE:HD13	A:118:LEU:HD22	0.405
168	A:55:MET:HB2	A:55:MET:HE3	0.404
168	A:502:SER:HA	A:505:MET:HG2	0.402
169	A:552:LEU:C	A:552:LEU:HD13	0.666
169	A:7:MET:HE1	A:61:LYS:HE2	0.532
169	A:7:MET:SD	A:61:LYS:HE2	0.523
169	A:301:VAL:HA	A:304:ILE:HG22	0.500
169	A:174:PHE:CD1	A:312:MET:HE1	0.480
169	A:512:LYS:HE3	A:516:MET:SD	0.451
169	A:134:ILE:HG23	A:139:MET:HE3	0.439
169	A:471:MET:C	A:471:MET:SD	0.423
169	A:554:LEU:HA	A:554:LEU:HD23	0.421
169	A:11:MET:HG2	A:12:CYS:N	0.408
169	A:416:SER:N	A:417:PRO:HD2	0.408
169	A:7:MET:CE	A:61:LYS:HE2	0.405
169	A:143:TYR:C	A:143:TYR:CD1	0.405
169	A:552:LEU:C	A:552:LEU:CD1	0.405
169	A:24:ASN:HA	A:25:PRO:HD3	0.401
170	A:373:PHE:CG	A:374:LYS:N	0.524
170	A:505:MET:HA	A:505:MET:HE2	0.520
170	A:179:VAL:HG12	A:234:LYS:H	0.462
170	A:528:LEU:C	A:528:LEU:HD13	0.442

Model ID	Atom-1	Atom-2	Clash overlap (Å)
170	A:429:LYS:HB2	A:430:PRO:HD2	0.424
170	A:14:ILE:HD11	A:78:ILE:HD12	0.423
171	A:420:GLU:HA	A:423:LYS:HE3	0.523
171	A:357:HIS:CE1	A:358:ARG:HH22	0.521
171	A:365:ILE:HA	A:368:PHE:CE1	0.493
171	A:411:LEU:HA	A:414:ILE:HG22	0.459
171	A:365:ILE:HA	A:368:PHE:CZ	0.437
171	A:423:LYS:HB2	A:423:LYS:HE3	0.419
171	A:185:PHE:CZ	A:187:LEU:HB3	0.405
171	A:221:LEU:HB3	A:222:PRO:HD3	0.405
171	A:64:GLY:HA2	A:81:TRP:CZ3	0.402
172	A:13:LEU:HD13	A:14:ILE:HG23	0.694
172	A:182:LEU:N	A:182:LEU:HD12	0.505
172	A:13:LEU:CD1	A:14:ILE:HG23	0.497
172	A:286:ILE:HB	A:292:ARG:CZ	0.489
172	A:569:SER:OG	A:573:LYS:HE2	0.463
172	A:96:LEU:C	A:96:LEU:HD23	0.443
172	A:128:TYR:CD1	A:180:TRP:CZ3	0.439
172	A:552:LEU:C	A:552:LEU:HD13	0.424
172	A:531:LEU:C	A:531:LEU:HD13	0.423
172	A:143:TYR:HA	A:222:PRO:HB3	0.417
172	A:318:ALA:HA	A:321:GLN:HG3	0.415
173	A:174:PHE:CE1	A:280:LYS:HE2	0.511

Model ID	Atom-1	Atom-2	Clash overlap (Å)
173	A:505:MET:HA	A:505:MET:HE2	0.479
173	A:338:GLN:O	A:342:LYS:HE2	0.466
173	A:430:PRO:HB3	A:481:THR:CG2	0.453
173	A:79:TRP:HA	A:80:MET:HB3	0.419
173	A:101:LEU:HD12	A:102:GLY:H	0.415
173	A:345:LEU:HA	A:346:PRO:HA	0.410
173	A:80:MET:HG3	A:80:MET:O	0.405
173	A:422:VAL:HG23	A:436:PHE:CE2	0.401
174	A:224:LEU:C	A:224:LEU:HD23	0.517
174	A:39:VAL:HG13	A:93:LEU:HD23	0.507
174	A:528:LEU:C	A:528:LEU:HD13	0.466
174	A:79:TRP:CG	A:80:MET:H	0.465
174	A:459:GLU:CD	A:459:GLU:H	0.455
174	A:384:LEU:C	A:384:LEU:HD13	0.431
174	A:440:LEU:CD1	A:495:LYS:HE3	0.430
174	A:194:GLN:HA	A:195:PRO:HD3	0.427
174	A:271:SER:HA	A:274:PHE:CE2	0.426
174	A:482:LEU:O	A:482:LEU:HD12	0.424
174	A:296:LEU:C	A:296:LEU:HD23	0.414
174	A:378:HIS:CD2	A:381:GLN:HB2	0.413
174	A:406:ARG:NE	A:453:LYS:HE2	0.411
175	A:254:GLN:CD	A:254:GLN:H	0.504
175	A:13:LEU:C	A:13:LEU:HD13	0.489

Model ID	Atom-1	Atom-2	Clash overlap (Å)
175	A:13:LEU:O	A:13:LEU:HD13	0.463
175	A:459:GLU:CD	A:459:GLU:N	0.422
175	A:106:LYS:CD	A:106:LYS:N	0.414
175	A:224:LEU:C	A:224:LEU:HD23	0.414
175	A:37:PRO:HB2	A:91:HIS:CD2	0.412
175	A:65:PHE:CG	A:66:SER:N	0.409
175	A:429:LYS:CG	A:430:PRO:HD2	0.407
175	A:406:ARG:HB3	A:453:LYS:HE2	0.401
176	A:55:MET:HE2	A:95:LEU:HG	0.777
176	A:330:LYS:HE2	A:334:HIS:CE1	0.679
176	A:288:VAL:HG23	A:292:ARG:HD2	0.631
176	A:177:ASP:HA	A:230:PHE:CE2	0.549
176	A:86:PRO:HG2	A:274:PHE:CE2	0.516
176	A:177:ASP:HA	A:230:PHE:CZ	0.497
176	A:415:PHE:HA	A:443:LEU:HD11	0.493
176	A:43:ILE:HD11	A:129:ASN:HD22	0.492
176	A:122:LEU:HA	A:280:LYS:NZ	0.482
176	A:410:LEU:HD12	A:413:VAL:HG12	0.462
176	A:182:LEU:HD22	A:185:PHE:CD1	0.460
176	A:343:VAL:HG11	A:356:LEU:HD13	0.458
176	A:13:LEU:HD23	A:80:MET:HG2	0.457
176	A:116:PHE:CD1	A:144:TYR:CE1	0.444
176	A:40:VAL:HB	A:94:VAL:CG1	0.442

Model ID	Atom-1	Atom-2	Clash overlap (Å)
176	A:152:ILE:HG21	A:171:PHE:CE1	0.442
176	A:317:LEU:C	A:319:LEU:H	0.439
176	A:312:MET:HA	A:315:ALA:HB3	0.428
176	A:375:ASP:HB2	A:380:PHE:H	0.428
176	A:40:VAL:HB	A:94:VAL:HG12	0.411
176	A:83:VAL:CG2	A:84:PRO:HD2	0.410
176	A:223:ARG:HA	A:226:ILE:HG22	0.410
176	A:202:LEU:HB3	A:233:LYS:HE2	0.408
176	A:55:MET:HA	A:95:LEU:HD21	0.406
177	A:80:MET:SD	A:94:VAL:HG21	0.732
177	A:177:ASP:HA	A:230:PHE:CE2	0.644
177	A:280:LYS:HB3	A:288:VAL:HG11	0.595
177	A:353:LEU:HD11	A:395:PHE:CZ	0.588
177	A:14:ILE:HD13	A:21:LEU:HD21	0.543
177	A:65:PHE:CE2	A:79:TRP:CD1	0.540
177	A:114:TRP:CZ3	A:300:TYR:CE2	0.531
177	A:280:LYS:HB3	A:288:VAL:CG1	0.530
177	A:87:LYS:HB2	A:274:PHE:CE2	0.529
177	A:427:TYR:CD2	A:432:GLY:HA3	0.515
177	A:202:LEU:HD22	A:235:CYS:HB2	0.510
177	A:410:LEU:HD23	A:453:LYS:HE2	0.502
177	A:96:LEU:HD22	A:122:LEU:HD23	0.487
177	A:81:TRP:C	A:94:VAL:HG23	0.471

Model ID	Atom-1	Atom-2	Clash overlap (Å)
177	A:114:TRP:CZ3	A:300:TYR:CD2	0.466
177	A:14:ILE:HG13	A:78:ILE:HG22	0.461
177	A:38:MET:SD	A:80:MET:HE1	0.459
177	A:234:LYS:HE2	A:272:TYR:CE2	0.453
177	A:234:LYS:CE	A:272:TYR:CE2	0.450
177	A:47:TYR:CG	A:48:ARG:N	0.442
177	A:267:ALA:HA	A:270:CYS:SG	0.437
177	A:332:ILE:HA	A:332:ILE:HD12	0.430
177	A:38:MET:HB3	A:288:VAL:HG13	0.427
177	A:11:MET:HG3	A:12:CYS:H	0.422
177	A:185:PHE:CD1	A:237:VAL:HG23	0.421
177	A:80:MET:HG3	A:80:MET:O	0.419
177	A:41:VAL:HG13	A:95:LEU:HD13	0.417
177	A:411:LEU:HA	A:414:ILE:HG22	0.409
177	A:11:MET:HG3	A:12:CYS:N	0.407
177	A:14:ILE:HG22	A:23:ALA:HA	0.406
177	A:114:TRP:CE2	A:304:ILE:HG21	0.406
177	A:386:ALA:HB3	A:387:GLN:OE1	0.406
178	A:57:LYS:HA	A:57:LYS:HE2	0.594
178	A:183:ARG:HD2	A:238:PHE:CE1	0.499
178	A:21:LEU:HD12	A:114:TRP:CZ2	0.476
178	A:353:LEU:HD13	A:395:PHE:CD1	0.461
178	A:125:THR:HG23	A:276:ASN:HD22	0.430

Model ID	Atom-1	Atom-2	Clash overlap (Å)
178	A:521:GLU:HG3	A:525:GLN:NE2	0.429
178	A:63:LYS:HA	A:63:LYS:HD2	0.421
178	A:55:MET:HA	A:58:LEU:HB3	0.408
178	A:350:LEU:HA	A:350:LEU:HD12	0.407
178	A:240:ARG:HH22	A:243:HIS:CE1	0.402
179	A:407:CYS:HB3	A:460:ILE:HG21	0.527
179	A:53:TYR:CE2	A:247:LEU:HG	0.508
179	A:335:TYR:CD2	A:388:LEU:HG	0.447
179	A:78:ILE:HD13	A:78:ILE:HG21	0.434
179	A:342:LYS:HB3	A:356:LEU:HB3	0.434
179	A:38:MET:C	A:279:THR:HG22	0.417
179	A:443:LEU:C	A:443:LEU:HD23	0.416
179	A:80:MET:HE1	A:122:LEU:HD21	0.408
179	A:335:TYR:CD1	A:360:SER:HB2	0.405
179	A:125:THR:HB	A:273:ILE:HD11	0.404
179	A:171:PHE:HB3	A:229:PHE:CG	0.402
180	A:44:VAL:HG22	A:45:GLY:H	0.807
180	A:439:LYS:HA	A:439:LYS:HE2	0.575
180	A:44:VAL:HG22	A:45:GLY:N	0.570
180	A:76:LYS:HA	A:76:LYS:HE2	0.560
180	A:356:LEU:C	A:356:LEU:HD13	0.547
180	A:180:TRP:HE1	A:182:LEU:CD2	0.538
180	A:180:TRP:HE1	A:182:LEU:HD21	0.537

Model ID	Atom-1	Atom-2	Clash overlap (Å)
180	A:482:LEU:CD2	A:482:LEU:H	0.500
180	A:44:VAL:CG2	A:45:GLY:H	0.492
180	A:11:MET:HG2	A:12:CYS:H	0.474
180	A:79:TRP:HA	A:80:MET:CB	0.471
180	A:356:LEU:HD12	A:395:PHE:CZ	0.451
180	A:411:LEU:C	A:411:LEU:HD13	0.433
180	A:453:LYS:HE3	A:457:ALA:CB	0.423
180	A:86:PRO:HG2	A:274:PHE:CZ	0.422
180	A:418:LEU:N	A:418:LEU:HD12	0.422
180	A:468:LYS:HA	A:468:LYS:HE3	0.422
180	A:198:PRO:HB2	A:235:CYS:HB3	0.421
180	A:79:TRP:HA	A:80:MET:HB2	0.417
180	A:202:LEU:HA	A:202:LEU:HD13	0.413
180	A:482:LEU:H	A:482:LEU:HD23	0.411
180	A:496:ALA:O	A:499:ALA:HB3	0.411
181	A:38:MET:HE1	A:293:LEU:HD21	0.759
181	A:206:LEU:HD21	A:226:ILE:HG23	0.585
181	A:175:PHE:CD2	A:176:PRO:HD2	0.580
181	A:31:LEU:HD11	A:80:MET:HE2	0.574
181	A:322:ILE:HD12	A:325:SER:HB2	0.569
181	A:31:LEU:HD23	A:294:GLU:HB3	0.547
181	A:31:LEU:HD23	A:294:GLU:CB	0.543
181	A:79:TRP:C	A:79:TRP:CD1	0.534

Model ID	Atom-1	Atom-2	Clash overlap (Å)
181	A:365:ILE:HD13	A:388:LEU:HD22	0.532
181	A:80:MET:HE1	A:293:LEU:HD23	0.522
181	A:410:LEU:HD22	A:453:LYS:HE3	0.517
181	A:280:LYS:HB3	A:288:VAL:HG11	0.511
181	A:120:VAL:HG23	A:175:PHE:CD2	0.501
181	A:146:THR:HG21	A:221:LEU:HG	0.500
181	A:222:PRO:O	A:226:ILE:HG22	0.500
181	A:80:MET:HE3	A:94:VAL:HG21	0.499
181	A:350:LEU:H	A:350:LEU:HD13	0.495
181	A:51:LYS:HE2	A:97:ASP:OD2	0.478
181	A:55:MET:HE3	A:95:LEU:HB3	0.474
181	A:435:LEU:O	A:435:LEU:HD13	0.448
181	A:80:MET:HE1	A:293:LEU:HG	0.442
181	A:450:GLU:HA	A:451:PRO:HD3	0.436
181	A:59:ALA:HB1	A:81:TRP:CD1	0.434
181	A:353:LEU:HD12	A:395:PHE:CZ	0.429
181	A:175:PHE:CZ	A:229:PHE:CE2	0.427
181	A:31:LEU:CD1	A:80:MET:HE2	0.423
181	A:199:ASP:OD1	A:234:LYS:HE2	0.422
181	A:80:MET:HE1	A:293:LEU:CD2	0.419
181	A:65:PHE:CZ	A:75:THR:HG21	0.413
181	A:145:VAL:HG13	A:225:CYS:SG	0.409
181	A:38:MET:HB3	A:38:MET:HE2	0.406

Model ID	Atom-1	Atom-2	Clash overlap (Å)
181	A:38:MET:CE	A:293:LEU:HD21	0.402
181	A:300:TYR:CZ	A:310:PRO:HG3	0.402
182	A:80:MET:SD	A:94:VAL:HG21	0.767
182	A:81:TRP:C	A:94:VAL:HG23	0.618
182	A:234:LYS:HE2	A:272:TYR:CE2	0.611
182	A:1:MET:HE3	A:81:TRP:CH2	0.586
182	A:312:MET:HA	A:315:ALA:HB3	0.565
182	A:180:TRP:CZ2	A:182:LEU:HD12	0.560
182	A:189:LEU:HD12	A:196:LEU:HB3	0.560
182	A:88:LYS:C	A:88:LYS:HE2	0.524
182	A:234:LYS:HE2	A:272:TYR:CZ	0.512
182	A:411:LEU:HD13	A:460:ILE:HG13	0.506
182	A:350:LEU:H	A:455:ILE:HD12	0.490
182	A:410:LEU:O	A:414:ILE:HG22	0.488
182	A:238:PHE:CE2	A:262:PHE:CD2	0.484
182	A:116:PHE:CZ	A:145:VAL:HG23	0.476
182	A:234:LYS:CE	A:272:TYR:CE2	0.465
182	A:28:LEU:HD13	A:294:GLU:HG2	0.454
182	A:400:GLN:HB3	A:520:LYS:HE3	0.451
182	A:145:VAL:HG22	A:229:PHE:CE1	0.443
182	A:182:LEU:C	A:183:ARG:HE	0.440
182	A:429:LYS:HA	A:429:LYS:HE3	0.440
182	A:241:PRO:HG3	A:262:PHE:CE1	0.433

Model ID	Atom-1	Atom-2	Clash overlap (Å)
182	A:81:TRP:CE3	A:81:TRP:HA	0.431
182	A:145:VAL:HG13	A:225:CYS:SG	0.425
182	A:280:LYS:HB3	A:288:VAL:HG11	0.424
182	A:292:ARG:HH22	A:315:ALA:HB1	0.416
182	A:55:MET:HB2	A:55:MET:HE3	0.415
182	A:120:VAL:HG22	A:175:PHE:CE2	0.411
182	A:288:VAL:HG23	A:292:ARG:HD2	0.410
182	A:177:ASP:HA	A:230:PHE:CZ	0.407
182	A:530:GLN:HA	A:530:GLN:HE21	0.405
182	A:453:LYS:H	A:457:ALA:HB2	0.403
183	A:31:LEU:HD11	A:80:MET:HE3	0.678
183	A:153:ARG:HH21	A:167:ASP:HB2	0.639
183	A:206:LEU:HD12	A:223:ARG:HG2	0.625
183	A:57:LYS:HD2	A:266:VAL:HG11	0.611
183	A:38:MET:SD	A:94:VAL:HG21	0.604
183	A:38:MET:HE2	A:288:VAL:CG1	0.593
183	A:114:TRP:CZ3	A:300:TYR:CE2	0.587
183	A:335:TYR:CD2	A:364:ALA:HB2	0.584
183	A:377:ASP:C	A:379:LEU:H	0.545
183	A:96:LEU:HD13	A:122:LEU:CD2	0.542
183	A:114:TRP:CZ3	A:300:TYR:CD2	0.538
183	A:411:LEU:HA	A:414:ILE:HG22	0.516
183	A:38:MET:HE2	A:288:VAL:HG11	0.509

Model ID	Atom-1	Atom-2	Clash overlap (Å)
183	A:31:LEU:HD11	A:80:MET:CE	0.507
183	A:206:LEU:HD12	A:223:ARG:CG	0.499
183	A:53:TYR:CE1	A:250:LEU:HG	0.498
183	A:335:TYR:CD2	A:364:ALA:CB	0.491
183	A:202:LEU:HD13	A:235:CYS:HB2	0.480
183	A:202:LEU:HD22	A:235:CYS:HB2	0.477
183	A:38:MET:HE2	A:288:VAL:HG13	0.470
183	A:78:ILE:HG23	A:96:LEU:HD11	0.468
183	A:421:GLU:HA	A:490:GLU:HG2	0.464
183	A:238:PHE:CE2	A:262:PHE:CD2	0.463
183	A:38:MET:HB2	A:92:ILE:HG22	0.455
183	A:53:TYR:CZ	A:250:LEU:HD21	0.455
183	A:80:MET:C	A:80:MET:SD	0.442
183	A:411:LEU:HD22	A:460:ILE:HD12	0.436
183	A:259:ASP:HA	A:260:PRO:HD3	0.435
183	A:174:PHE:CE1	A:312:MET:SD	0.434
183	A:292:ARG:HA	A:318:ALA:HB1	0.430
183	A:300:TYR:CZ	A:310:PRO:HG2	0.425
183	A:114:TRP:CE3	A:300:TYR:CE2	0.424
183	A:194:GLN:HG2	A:195:PRO:HD2	0.424
183	A:316:VAL:HA	A:319:LEU:HB2	0.423
183	A:439:LYS:HD3	A:439:LYS:O	0.422
183	A:38:MET:HE3	A:40:VAL:HB	0.421

Model ID	Atom-1	Atom-2	Clash overlap (Å)
183	A:238:PHE:CZ	A:262:PHE:CE2	0.421
183	A:114:TRP:HA	A:117:ALA:HB3	0.420
183	A:422:VAL:HG23	A:475:ILE:HD12	0.417
183	A:550:LEU:HD23	A:553:LYS:HD3	0.414
183	A:39:VAL:HG22	A:40:VAL:N	0.413
183	A:358:ARG:HB2	A:358:ARG:HH11	0.410
183	A:582:LYS:HE2	A:582:LYS:N	0.409
183	A:43:ILE:HA	A:127:VAL:O	0.407
183	A:557:GLN:HA	A:560:LEU:HD23	0.405
183	A:49:THR:HG22	A:131:ILE:HB	0.404
183	A:527:HIS:CE1	A:531:LEU:HD13	0.404
183	A:14:ILE:HD12	A:21:LEU:HD21	0.401
183	A:441:GLN:HA	A:444:LYS:HE3	0.400
184	A:80:MET:HE3	A:94:VAL:HG21	0.611
184	A:79:TRP:CG	A:80:MET:H	0.567
184	A:292:ARG:HG2	A:319:LEU:HD13	0.564
184	A:258:LEU:HD21	A:262:PHE:CD1	0.550
184	A:56:ASN:HA	A:59:ALA:HB3	0.543
184	A:79:TRP:CG	A:80:MET:N	0.532
184	A:31:LEU:HD23	A:294:GLU:HB2	0.530
184	A:177:ASP:HA	A:230:PHE:CE2	0.518
184	A:328:VAL:HB	A:380:PHE:CE2	0.513
184	A:81:TRP:C	A:94:VAL:HG23	0.511

Model ID	Atom-1	Atom-2	Clash overlap (Å)
184	A:65:PHE:CZ	A:75:THR:HG23	0.502
184	A:96:LEU:HD13	A:122:LEU:CD2	0.486
184	A:64:GLY:HA2	A:81:TRP:CE2	0.474
184	A:146:THR:HG21	A:221:LEU:HG	0.471
184	A:38:MET:CE	A:293:LEU:HD21	0.463
184	A:175:PHE:CD2	A:176:PRO:HD2	0.457
184	A:64:GLY:HA2	A:81:TRP:CD2	0.455
184	A:364:ALA:HB1	A:384:LEU:HD21	0.447
184	A:381:GLN:HA	A:384:LEU:HB3	0.442
184	A:447:TYR:CE2	A:453:LYS:HD3	0.437
184	A:78:ILE:HG23	A:96:LEU:HD11	0.435
184	A:263:VAL:HG13	A:264:GLN:H	0.434
184	A:312:MET:HA	A:315:ALA:HB3	0.433
184	A:80:MET:CE	A:94:VAL:HG21	0.431
184	A:34:ILE:HD11	A:92:ILE:HG21	0.427
184	A:436:PHE:CZ	A:471:MET:HE2	0.422
184	A:53:TYR:CE1	A:57:LYS:HE3	0.421
184	A:121:LEU:HD13	A:152:ILE:HD11	0.420
184	A:324:ASN:O	A:380:PHE:CE1	0.410
184	A:30:ILE:HA	A:30:ILE:HD12	0.406
184	A:263:VAL:HG13	A:264:GLN:N	0.401
185	A:280:LYS:HB3	A:288:VAL:HG11	0.565
185	A:177:ASP:HA	A:230:PHE:CE2	0.546

Model ID	Atom-1	Atom-2	Clash overlap (Å)
185	A:114:TRP:CZ3	A:300:TYR:CE2	0.536
185	A:292:ARG:HH12	A:296:LEU:HD22	0.521
185	A:282:LEU:HD22	A:292:ARG:HE	0.517
185	A:487:LYS:O	A:491:VAL:HG23	0.506
185	A:260:PRO:HA	A:263:VAL:HG12	0.501
185	A:292:ARG:NH2	A:315:ALA:HB1	0.501
185	A:410:LEU:HD22	A:453:LYS:HE2	0.496
185	A:11:MET:HB3	A:79:TRP:CH2	0.486
185	A:180:TRP:HE1	A:202:LEU:HD21	0.479
185	A:271:SER:HA	A:274:PHE:CD1	0.461
185	A:171:PHE:CE1	A:229:PHE:CZ	0.458
185	A:238:PHE:CE2	A:262:PHE:CD2	0.457
185	A:427:TYR:CE2	A:479:ASP:HB2	0.452
185	A:114:TRP:CZ2	A:304:ILE:HG21	0.448
185	A:433:TYR:CD1	A:433:TYR:N	0.442
185	A:317:LEU:O	A:320:ALA:HB3	0.441
185	A:55:MET:HG3	A:95:LEU:HD21	0.437
185	A:286:ILE:HD13	A:319:LEU:HD21	0.432
185	A:41:VAL:HG11	A:58:LEU:HD22	0.428
185	A:58:LEU:HD21	A:273:ILE:HG21	0.422
185	A:78:ILE:HG13	A:98:THR:HG22	0.421
185	A:309:LEU:HA	A:310:PRO:HD3	0.419
185	A:300:TYR:O	A:304:ILE:HG22	0.404

Model ID	Atom-1	Atom-2	Clash overlap (Å)
185	A:238:PHE:CZ	A:262:PHE:CZ	0.401
185	A:221:LEU:N	A:222:PRO:HD2	0.400
186	A:134:ILE:HD11	A:182:LEU:HD22	0.501
186	A:416:SER:HB3	A:417:PRO:HD3	0.497
186	A:96:LEU:C	A:96:LEU:HD23	0.475
186	A:139:MET:HE3	A:219:PHE:CG	0.438
186	A:395:PHE:C	A:395:PHE:CD1	0.430
186	A:443:LEU:C	A:443:LEU:HD23	0.414
186	A:212:THR:HG22	A:213:SER:N	0.404
187	A:414:ILE:HG21	A:447:TYR:CD1	0.627
187	A:80:MET:SD	A:94:VAL:HG21	0.620
187	A:114:TRP:CZ2	A:304:ILE:HG21	0.569
187	A:79:TRP:CG	A:80:MET:H	0.518
187	A:148:LEU:HD12	A:151:ARG:HB2	0.508
187	A:13:LEU:HD22	A:27:ALA:HB1	0.447
187	A:312:MET:HA	A:315:ALA:HB3	0.444
187	A:38:MET:HG2	A:92:ILE:CG2	0.439
187	A:208:LEU:CD1	A:223:ARG:HD2	0.439
187	A:230:PHE:CD2	A:231:PRO:HD2	0.432
187	A:247:LEU:O	A:247:LEU:HD23	0.416
187	A:328:VAL:HA	A:331:ALA:HB3	0.416
187	A:59:ALA:HB2	A:81:TRP:HE1	0.412
187	A:116:PHE:HB3	A:144:TYR:CZ	0.410

Model ID	Atom-1	Atom-2	Clash overlap (Å)
187	A:79:TRP:CG	A:80:MET:N	0.408
187	A:136:GLN:CD	A:136:GLN:H	0.401
187	A:300:TYR:CD2	A:310:PRO:HB3	0.400
188	A:120:VAL:HG23	A:175:PHE:CD2	0.618
188	A:121:LEU:HD23	A:300:TYR:CD1	0.617
188	A:64:GLY:HA2	A:81:TRP:CE2	0.606
188	A:289:ASN:O	A:293:LEU:HD22	0.571
188	A:14:ILE:HG22	A:23:ALA:HA	0.570
188	A:55:MET:HE3	A:95:LEU:HG	0.551
188	A:34:ILE:C	A:34:ILE:HD13	0.519
188	A:560:LEU:C	A:560:LEU:HD12	0.509
188	A:353:LEU:HD11	A:395:PHE:CZ	0.506
188	A:573:LYS:HA	A:576:ILE:HG22	0.497
188	A:436:PHE:CD2	A:475:ILE:HD13	0.494
188	A:242:VAL:HG22	A:243:HIS:H	0.493
188	A:271:SER:HA	A:274:PHE:CD1	0.492
188	A:290:GLY:N	A:291:PRO:HD2	0.483
188	A:230:PHE:CD2	A:231:PRO:HD2	0.479
188	A:14:ILE:C	A:14:ILE:HD12	0.459
188	A:14:ILE:HD11	A:78:ILE:HB	0.455
188	A:280:LYS:HB3	A:288:VAL:HG11	0.454
188	A:312:MET:HA	A:315:ALA:HB3	0.454
188	A:317:LEU:O	A:317:LEU:HD13	0.449

Model ID	Atom-1	Atom-2	Clash overlap (Å)
188	A:330:LYS:HE3	A:367:VAL:HG22	0.442
188	A:114:TRP:CZ3	A:118:LEU:HB2	0.439
188	A:152:ILE:HG21	A:171:PHE:CE1	0.434
188	A:38:MET:HE3	A:40:VAL:HB	0.433
188	A:14:ILE:HG13	A:78:ILE:HG22	0.421
188	A:38:MET:HA	A:92:ILE:O	0.418
188	A:348:GLU:HG3	A:349:SER:H	0.418
188	A:58:LEU:CD1	A:273:ILE:HG23	0.416
188	A:120:VAL:HG23	A:175:PHE:CE2	0.410
188	A:145:VAL:HG22	A:229:PHE:CE1	0.403
188	A:58:LEU:HD13	A:273:ILE:HG23	0.401
189	A:247:LEU:H	A:247:LEU:HD23	0.772
189	A:247:LEU:CD2	A:247:LEU:H	0.503
189	A:5:ILE:HA	A:7:MET:HE2	0.492
189	A:174:PHE:CE1	A:280:LYS:HE2	0.487
189	A:516:MET:HE1	A:517:MET:HE2	0.467
189	A:414:ILE:HG22	A:443:LEU:CD1	0.450
189	A:239:ASP:O	A:241:PRO:HD3	0.428
189	A:414:ILE:HG22	A:443:LEU:HD12	0.428
189	A:175:PHE:CD2	A:176:PRO:HD2	0.406
190	A:21:LEU:C	A:21:LEU:HD23	0.518
190	A:175:PHE:CD2	A:176:PRO:HD2	0.496
190	A:21:LEU:HD23	A:22:MET:N	0.469

Model ID	Atom-1	Atom-2	Clash overlap (Å)
190	A:350:LEU:N	A:350:LEU:HD22	0.467
190	A:101:LEU:H	A:101:LEU:HD12	0.453
190	A:271:SER:HA	A:274:PHE:CE1	0.439
190	A:517:MET:HB3	A:517:MET:HE3	0.428
190	A:350:LEU:H	A:350:LEU:HD22	0.411
190	A:462:GLN:HA	A:465:LEU:HD12	0.410
190	A:5:ILE:HG13	A:7:MET:HE1	0.404
191	A:403:SER:HA	A:407:CYS:SG	0.529
191	A:286:ILE:H	A:286:ILE:HD13	0.495
191	A:174:PHE:CD1	A:280:LYS:HE2	0.475
191	A:322:ILE:H	A:322:ILE:HD12	0.474
191	A:440:LEU:HG	A:444:LYS:HE2	0.466
191	A:152:ILE:HG13	A:153:ARG:H	0.465
191	A:224:LEU:HD11	A:228:LYS:HE2	0.465
191	A:418:LEU:HD11	A:436:PHE:CE2	0.463
191	A:368:PHE:HB2	A:380:PHE:CE2	0.459
191	A:121:LEU:HD11	A:296:LEU:HD11	0.435
191	A:271:SER:HA	A:274:PHE:CE2	0.422
191	A:286:ILE:CD1	A:286:ILE:H	0.412
191	A:234:LYS:HD2	A:272:TYR:CZ	0.401
191	A:139:MET:SD	A:206:LEU:HD21	0.400
192	A:122:LEU:O	A:280:LYS:HE2	0.562
192	A:171:PHE:CD2	A:175:PHE:CZ	0.532

Model ID	Atom-1	Atom-2	Clash overlap (Å)
192	A:292:ARG:HD2	A:322:ILE:HG21	0.508
192	A:168:SER:HA	A:171:PHE:CD1	0.498
192	A:243:HIS:CG	A:245:ARG:HH11	0.489
192	A:457:ALA:C	A:459:GLU:H	0.475
192	A:452:ARG:HH12	A:508:GLU:CD	0.452
192	A:443:LEU:C	A:443:LEU:HD23	0.451
192	A:226:ILE:HG23	A:227:ARG:N	0.428
192	A:365:ILE:HD12	A:526:GLU:CD	0.425
192	A:241:PRO:HB3	A:262:PHE:CD1	0.422
192	A:236:PHE:CG	A:237:VAL:N	0.420
192	A:88:LYS:HA	A:89:PRO:HD2	0.417
192	A:527:HIS:C	A:527:HIS:CD2	0.409
193	A:122:LEU:HD13	A:296:LEU:HD12	0.676
193	A:238:PHE:CD2	A:262:PHE:CZ	0.581
193	A:38:MET:HG2	A:39:VAL:H	0.499
193	A:35:THR:HG23	A:377:ASP:HB3	0.466
193	A:242:VAL:HG22	A:243:HIS:N	0.457
193	A:128:TYR:CD2	A:180:TRP:CZ3	0.454
193	A:85:HIS:HA	A:86:PRO:HD3	0.450
193	A:122:LEU:C	A:280:LYS:HE2	0.450
193	A:11:MET:HE3	A:548:ARG:CZ	0.438
193	A:55:MET:HG3	A:97:ASP:HB2	0.434
193	A:38:MET:HG2	A:39:VAL:N	0.427

Model ID	Atom-1	Atom-2	Clash overlap (Å)
193	A:296:LEU:O	A:296:LEU:HD13	0.418
193	A:126:PHE:C	A:126:PHE:CD2	0.413
193	A:207:LYS:HB3	A:207:LYS:HE2	0.409
193	A:155:LYS:HG2	A:156:SER:H	0.406
193	A:221:LEU:HB3	A:222:PRO:HD3	0.402
193	A:11:MET:HB3	A:79:TRP:CZ3	0.401
193	A:65:PHE:CG	A:66:SER:N	0.400
194	A:79:TRP:CG	A:80:MET:H	0.669
194	A:38:MET:HG3	A:92:ILE:HG23	0.570
194	A:38:MET:HE1	A:293:LEU:HD13	0.553
194	A:185:PHE:CD1	A:237:VAL:HG23	0.549
194	A:114:TRP:CZ3	A:300:TYR:CE2	0.545
194	A:152:ILE:HG21	A:171:PHE:CZ	0.542
194	A:152:ILE:HG21	A:171:PHE:CE1	0.535
194	A:175:PHE:CD2	A:176:PRO:HD2	0.529
194	A:114:TRP:CZ2	A:304:ILE:HG21	0.525
194	A:34:ILE:HD11	A:92:ILE:HD13	0.517
194	A:55:MET:HG3	A:95:LEU:HG	0.516
194	A:230:PHE:CD2	A:231:PRO:HD2	0.515
194	A:242:VAL:HG21	A:246:LYS:HD2	0.514
194	A:80:MET:HE3	A:293:LEU:HD22	0.512
194	A:560:LEU:HA	A:564:GLY:HA3	0.485
194	A:133:THR:HA	A:182:LEU:HD21	0.461

Model ID	Atom-1	Atom-2	Clash overlap (Å)
194	A:38:MET:HE3	A:94:VAL:HG11	0.453
194	A:180:TRP:CZ2	A:182:LEU:HD13	0.453
194	A:59:ALA:HB1	A:83:VAL:HG21	0.447
194	A:43:ILE:HG23	A:51:LYS:HE2	0.442
194	A:154:SER:HA	A:312:MET:HB2	0.438
194	A:238:PHE:CE2	A:262:PHE:CE2	0.432
194	A:400:GLN:CD	A:456:GLN:HE22	0.432
194	A:80:MET:HE2	A:94:VAL:HG11	0.430
194	A:270:CYS:HA	A:273:ILE:HG22	0.421
194	A:189:LEU:HD21	A:201:TYR:HB2	0.419
194	A:182:LEU:HA	A:182:LEU:HD12	0.418
194	A:482:LEU:HD12	A:483:THR:H	0.417
194	A:38:MET:HE3	A:94:VAL:CG1	0.411
194	A:110:GLN:O	A:113:SER:HB3	0.411
194	A:194:GLN:HG3	A:195:PRO:HD2	0.411
194	A:11:MET:HB3	A:79:TRP:CH2	0.408
194	A:38:MET:HB2	A:288:VAL:HG13	0.405
194	A:15:GLU:O	A:21:LEU:HD12	0.400
195	A:146:THR:HG22	A:225:CYS:HB2	0.630
195	A:80:MET:HE2	A:94:VAL:HG11	0.628
195	A:414:ILE:O	A:443:LEU:HD11	0.576
195	A:560:LEU:HB2	A:566:GLN:H	0.559
195	A:57:LYS:HE3	A:57:LYS:O	0.543

Model ID	Atom-1	Atom-2	Clash overlap (Å)
195	A:420:GLU:HA	A:423:LYS:HE3	0.538
195	A:31:LEU:HD11	A:80:MET:SD	0.537
195	A:58:LEU:O	A:58:LEU:HD23	0.490
195	A:289:ASN:H	A:292:ARG:HB3	0.488
195	A:322:ILE:HD12	A:376:VAL:HG21	0.486
195	A:300:TYR:CZ	A:310:PRO:HG3	0.482
195	A:99:GLU:HG2	A:100:GLY:H	0.478
195	A:260:PRO:HA	A:263:VAL:HG12	0.466
195	A:230:PHE:CD2	A:231:PRO:HD2	0.465
195	A:177:ASP:HA	A:230:PHE:CZ	0.463
195	A:40:VAL:HB	A:94:VAL:HG13	0.462
195	A:57:LYS:HG2	A:266:VAL:HG22	0.458
195	A:411:LEU:HA	A:414:ILE:HG22	0.453
195	A:116:PHE:HB3	A:144:TYR:CE1	0.449
195	A:122:LEU:CD1	A:296:LEU:HD22	0.445
195	A:154:SER:HA	A:312:MET:HG2	0.444
195	A:354:LEU:C	A:354:LEU:HD13	0.442
195	A:54:LEU:HD21	A:269:PHE:CE1	0.440
195	A:345:LEU:HA	A:346:PRO:HA	0.439
195	A:14:ILE:HG12	A:78:ILE:HG22	0.426
195	A:335:TYR:CD2	A:364:ALA:HB2	0.424
195	A:114:TRP:CZ3	A:300:TYR:CE2	0.423
195	A:292:ARG:HE	A:319:LEU:HB2	0.420

Model ID	Atom-1	Atom-2	Clash overlap (Å)
195	A:453:LYS:HD2	A:457:ALA:HA	0.416
195	A:202:LEU:HD13	A:235:CYS:SG	0.415
195	A:21:LEU:HD23	A:114:TRP:CE2	0.409
195	A:14:ILE:HG22	A:23:ALA:HA	0.408
195	A:537:ASN:HA	A:540:VAL:HG22	0.408
195	A:65:PHE:CD2	A:66:SER:O	0.406
195	A:99:GLU:CG	A:100:GLY:H	0.405
195	A:282:LEU:O	A:286:ILE:HG22	0.405
195	A:346:PRO:HB2	A:347:THR:H	0.404
196	A:14:ILE:HD12	A:21:LEU:HD11	0.770
196	A:208:LEU:HD11	A:220:ASN:HB2	0.621
196	A:250:LEU:HD11	A:258:LEU:HD13	0.619
196	A:14:ILE:HD11	A:78:ILE:HB	0.542
196	A:206:LEU:HD22	A:233:LYS:HE3	0.518
196	A:14:ILE:CD1	A:21:LEU:HD11	0.517
196	A:411:LEU:HD22	A:460:ILE:HG13	0.514
196	A:21:LEU:HD22	A:114:TRP:CE2	0.495
196	A:53:TYR:CZ	A:57:LYS:HE2	0.483
196	A:312:MET:HA	A:315:ALA:HB3	0.478
196	A:180:TRP:CZ2	A:182:LEU:HD12	0.476
196	A:202:LEU:HD22	A:235:CYS:HB3	0.471
196	A:133:THR:HG21	A:187:LEU:HD13	0.461
196	A:427:TYR:CE1	A:475:ILE:HG12	0.460

Model ID	Atom-1	Atom-2	Clash overlap (Å)
196	A:419:GLU:OE2	A:468:LYS:HE3	0.451
196	A:280:LYS:HB3	A:288:VAL:HG11	0.448
196	A:80:MET:SD	A:94:VAL:HG21	0.446
196	A:197:THR:HB	A:198:PRO:HD2	0.439
196	A:172:VAL:O	A:172:VAL:HG22	0.434
196	A:411:LEU:HD13	A:460:ILE:HG23	0.428
196	A:515:GLN:NE2	A:519:GLN:HE21	0.428
196	A:271:SER:HA	A:274:PHE:CD1	0.423
196	A:282:LEU:HD12	A:283:SER:H	0.406
196	A:185:PHE:HD1	A:237:VAL:HG23	0.402
197	A:77:GLY:HA2	A:115:ILE:HD13	0.630
197	A:79:TRP:CZ3	A:81:TRP:CD1	0.526
197	A:118:LEU:C	A:118:LEU:HD23	0.428
197	A:41:VAL:HA	A:125:THR:O	0.403
198	A:61:LYS:HE2	A:81:TRP:CZ3	0.612
198	A:77:GLY:C	A:78:ILE:HD12	0.588
198	A:453:LYS:HE2	A:508:GLU:HG3	0.569
198	A:120:VAL:HG11	A:152:ILE:HD13	0.513
198	A:264:GLN:HA	A:267:ALA:HB3	0.507
198	A:61:LYS:HE2	A:81:TRP:CH2	0.488
198	A:123:SER:C	A:280:LYS:HE3	0.473
198	A:11:MET:SD	A:27:ALA:HB2	0.463
198	A:468:LYS:HA	A:468:LYS:HE3	0.431

Model ID	Atom-1	Atom-2	Clash overlap (Å)
198	A:9:GLY:HA2	A:10:PRO:HD3	0.425
198	A:15:GLU:HG3	A:77:GLY:HA2	0.425
198	A:233:LYS:HB3	A:233:LYS:HE2	0.417
199	A:282:LEU:CD1	A:292:ARG:HH11	0.619
199	A:41:VAL:HG23	A:125:THR:HB	0.550
199	A:535:MET:HA	A:535:MET:HE3	0.524
199	A:202:LEU:HD21	A:235:CYS:SG	0.421
199	A:5:ILE:HD11	A:61:LYS:HE3	0.415
199	A:226:ILE:HA	A:226:ILE:HD12	0.413
199	A:41:VAL:HG23	A:125:THR:CG2	0.408
200	A:296:LEU:HD12	A:315:ALA:HB1	0.900
200	A:415:PHE:CE2	A:468:LYS:HE3	0.592
200	A:120:VAL:HG11	A:148:LEU:HD21	0.581
200	A:468:LYS:HG3	A:494:VAL:HG21	0.570
200	A:490:GLU:O	A:494:VAL:HG23	0.566
200	A:177:ASP:HA	A:230:PHE:CZ	0.565
200	A:408:SER:HB2	A:501:ALA:HA	0.565
200	A:38:MET:HG3	A:92:ILE:HG22	0.548
200	A:81:TRP:C	A:94:VAL:HG23	0.543
200	A:292:ARG:HG2	A:319:LEU:HD22	0.541
200	A:453:LYS:CE	A:461:LEU:HD22	0.536
200	A:177:ASP:HA	A:230:PHE:CE2	0.520
200	A:114:TRP:CZ2	A:304:ILE:HG21	0.495

Model ID	Atom-1	Atom-2	Clash overlap (Å)
200	A:127:VAL:HG23	A:181:THR:HG23	0.491
200	A:14:ILE:HD13	A:21:LEU:HD21	0.474
200	A:468:LYS:HD3	A:471:MET:SD	0.469
200	A:38:MET:CG	A:92:ILE:HG22	0.465
200	A:13:LEU:HD22	A:27:ALA:HB1	0.463
200	A:114:TRP:CZ3	A:300:TYR:CE2	0.461
200	A:175:PHE:CZ	A:229:PHE:CZ	0.459
200	A:1:MET:HG2	A:6:HIS:CE1	0.456
200	A:43:ILE:HD13	A:51:LYS:HB2	0.456
200	A:121:LEU:HD21	A:312:MET:HB2	0.454
200	A:346:PRO:HB2	A:454:GLY:HA2	0.452
200	A:38:MET:HE1	A:293:LEU:HD21	0.445
200	A:185:PHE:CE2	A:187:LEU:HB3	0.445
200	A:292:ARG:HG2	A:319:LEU:CD2	0.437
200	A:314:ASN:N	A:314:ASN:HD22	0.431
200	A:78:ILE:HG12	A:98:THR:HG22	0.428
200	A:123:SER:O	A:280:LYS:HE2	0.424
200	A:317:LEU:HD11	A:374:LYS:HE3	0.423
200	A:55:MET:HE2	A:95:LEU:HD12	0.422
200	A:338:GLN:HE21	A:363:GLU:CD	0.422
200	A:230:PHE:CD2	A:231:PRO:HD2	0.419
200	A:142:LEU:HG	A:142:LEU:O	0.413
200	A:466:LYS:HE3	A:466:LYS:O	0.409

Model ID	Atom-1	Atom-2	Clash overlap (Å)
200	A:345:LEU:H	A:345:LEU:HD23	0.405
201	A:7:MET:SD	A:61:LYS:HE3	0.550
201	A:435:LEU:H	A:435:LEU:HD22	0.545
201	A:65:PHE:CD2	A:79:TRP:CD1	0.490
201	A:450:GLU:HA	A:451:PRO:HD3	0.439
201	A:280:LYS:HA	A:280:LYS:HE3	0.433
201	A:31:LEU:HD13	A:80:MET:HE1	0.430
201	A:201:TYR:C	A:201:TYR:CD1	0.408
201	A:43:ILE:HG13	A:129:ASN:HD21	0.405
201	A:30:ILE:HG22	A:80:MET:SD	0.404
202	A:447:TYR:CD2	A:461:LEU:HD13	0.566
202	A:357:HIS:CE1	A:392:ARG:HE	0.563
202	A:443:LEU:O	A:443:LEU:HD23	0.503
202	A:382:LYS:HE3	A:382:LYS:O	0.491
202	A:531:LEU:O	A:531:LEU:HD13	0.491
202	A:165:VAL:HG13	A:166:GLU:H	0.463
202	A:531:LEU:C	A:531:LEU:HD13	0.438
202	A:142:LEU:HD23	A:222:PRO:HB2	0.432
202	A:128:TYR:CE1	A:180:TRP:CH2	0.431
202	A:353:LEU:HG	A:395:PHE:CE1	0.411
202	A:187:LEU:C	A:189:LEU:H	0.404
203	A:557:GLN:CD	A:562:LYS:HE2	0.628
203	A:208:LEU:H	A:208:LEU:HD12	0.562

Model ID	Atom-1	Atom-2	Clash overlap (Å)
203	A:415:PHE:CE2	A:468:LYS:HE3	0.506
203	A:531:LEU:C	A:531:LEU:HD23	0.478
203	A:579:LEU:H	A:579:LEU:HD22	0.478
203	A:52:SER:HB3	A:65:PHE:CZ	0.469
203	A:55:MET:HE1	A:97:ASP:HB2	0.456
203	A:580:GLN:HA	A:580:GLN:NE2	0.453
203	A:13:LEU:C	A:13:LEU:HD13	0.446
203	A:552:LEU:C	A:552:LEU:HD13	0.440
203	A:415:PHE:CZ	A:468:LYS:HE3	0.439
203	A:38:MET:O	A:279:THR:HG22	0.438
203	A:40:VAL:HG13	A:124:SER:H	0.423
203	A:206:LEU:HG	A:223:ARG:HE	0.421
203	A:295:SER:O	A:299:THR:HG23	0.415
203	A:68:GLY:H	A:74:HIS:CE1	0.414
203	A:453:LYS:H	A:453:LYS:HD2	0.411
204	A:208:LEU:H	A:208:LEU:HD12	0.615
204	A:418:LEU:C	A:418:LEU:HD23	0.515
204	A:391:LYS:HA	A:391:LYS:HE3	0.506
204	A:531:LEU:C	A:531:LEU:HD13	0.469
204	A:555:GLN:O	A:558:GLU:HB2	0.457
204	A:183:ARG:HH22	A:247:LEU:HD21	0.452
204	A:44:VAL:HG23	A:128:TYR:CD1	0.441
204	A:292:ARG:CZ	A:319:LEU:HG	0.435

Model ID	Atom-1	Atom-2	Clash overlap (Å)
204	A:118:LEU:C	A:118:LEU:HD23	0.422
204	A:293:LEU:HA	A:293:LEU:HD22	0.411
204	A:321:GLN:CD	A:321:GLN:H	0.409
204	A:296:LEU:HD23	A:312:MET:CE	0.408
204	A:153:ARG:HA	A:153:ARG:NE	0.406
205	A:509:MET:HA	A:509:MET:HE3	0.585
205	A:97:ASP:C	A:98:THR:HG23	0.471
205	A:293:LEU:C	A:293:LEU:HD13	0.448
205	A:311:CYS:C	A:312:MET:HE2	0.444
205	A:97:ASP:C	A:98:THR:CG2	0.440
205	A:509:MET:CE	A:509:MET:HA	0.413
205	A:338:GLN:O	A:342:LYS:HE3	0.410
205	A:355:ASP:HA	A:358:ARG:HG2	0.410
205	A:208:LEU:N	A:208:LEU:HD12	0.406
205	A:128:TYR:CD2	A:180:TRP:CH2	0.404
205	A:528:LEU:C	A:528:LEU:HD13	0.401
205	A:116:PHE:C	A:116:PHE:CD2	0.400
206	A:134:ILE:HG13	A:138:ALA:HB3	0.498
206	A:254:GLN:CD	A:254:GLN:H	0.454
206	A:281:THR:C	A:282:LEU:HD12	0.447
206	A:42:ALA:HA	A:96:LEU:O	0.443
206	A:85:HIS:HA	A:86:PRO:HD3	0.424
206	A:283:SER:HB2	A:312:MET:HB3	0.408

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	581	527	40	14
2	581	515	61	5
3	581	528	43	10
4	581	527	45	9
5	581	527	46	8
6	581	539	33	9
7	581	514	52	15
8	581	528	47	6
9	581	536	35	10
10	581	543	34	4
11	581	539	38	4
12	581	528	44	9
13	581	531	39	11
14	581	526	47	8
15	581	530	45	6
16	581	524	51	6
17	581	527	48	6
18	581	520	52	9
19	581	509	55	17
20	581	508	65	8
21	581	506	65	10

Model ID	Analyzed	Favored	Allowed	Outliers
22	581	529	45	7
23	581	530	40	11
24	581	533	41	7
25	581	524	50	7
26	581	533	34	14
27	581	538	36	7
28	581	527	49	5
29	581	528	45	8
30	581	528	47	6
31	581	544	28	9
32	581	531	41	9
33	581	541	35	5
34	581	537	37	7
35	581	504	60	17
36	581	520	51	10
37	581	526	49	6
38	581	537	39	5
39	581	533	36	12
40	581	533	43	5
41	581	531	41	9
42	581	526	50	5
43	581	524	51	6
44	581	519	56	6

Model ID	Analyzed	Favored	Allowed	Outliers
45	581	530	44	7
46	581	531	43	7
47	581	522	47	12
48	581	517	54	10
49	581	522	51	8
50	581	524	51	6
51	581	538	35	8
52	581	526	51	4
53	581	534	37	10
54	581	530	39	12
55	581	536	37	8
56	581	522	51	8
57	581	531	45	5
58	581	542	37	2
59	581	532	39	10
60	581	518	50	13
61	581	533	41	7
62	581	531	38	12
63	581	531	40	10
64	581	530	42	9
65	581	537	35	9
66	581	522	53	6
67	581	529	40	12

Model ID	Analyzed	Favored	Allowed	Outliers
68	581	527	46	8
69	581	521	50	10
70	581	529	41	11
71	581	527	44	10
72	581	532	40	9
73	581	514	58	9
74	581	499	74	8
75	581	531	46	4
76	581	537	39	5
77	581	534	40	7
78	581	540	34	7
79	581	535	38	8
80	581	531	45	5
81	581	536	36	9
82	581	533	40	8
83	581	514	55	12
84	581	528	40	13
85	581	528	49	4
86	581	536	36	9
87	581	507	63	11
88	581	527	46	8
89	581	529	47	5
90	581	524	49	8

Model ID	Analyzed	Favored	Allowed	Outliers
91	581	522	51	8
92	581	504	68	9
93	581	509	56	16
94	581	505	58	18
95	581	512	51	18
96	581	519	54	8
97	581	518	52	11
98	581	536	31	14
99	581	527	43	11
100	581	529	42	10
101	581	522	52	7
102	581	519	53	9
103	581	524	47	10
104	581	533	44	4
105	581	538	30	13
106	581	528	43	10
107	581	503	63	15
108	581	536	35	10
109	581	530	38	13
110	581	526	46	9
111	581	532	39	10
112	581	512	51	18
113	581	505	57	19

Model ID	Analyzed	Favored	Allowed	Outliers
114	581	514	54	13
115	581	506	63	12
116	581	541	33	7
117	581	533	40	8
118	581	532	42	7
119	581	536	39	6
120	581	537	40	4
121	581	505	60	16
122	581	512	53	16
123	581	528	39	14
124	581	521	48	12
125	581	511	57	13
126	581	526	46	9
127	581	524	48	9
128	581	536	38	7
129	581	527	45	9
130	581	510	57	14
131	581	518	51	12
132	581	527	44	10
133	581	536	39	6
134	581	513	52	16
135	581	521	49	11
136	581	523	50	8

Model ID	Analyzed	Favored	Allowed	Outliers
137	581	524	50	7
138	581	528	46	7
139	581	531	43	7
140	581	519	52	10
141	581	512	59	10
142	581	529	45	7
143	581	526	42	13
144	581	520	45	16
145	581	526	45	10
146	581	529	35	17
147	581	529	45	7
148	581	516	56	9
149	581	535	44	2
150	581	529	49	3
151	581	519	54	8
152	581	513	58	10
153	581	529	39	13
154	581	528	42	11
155	581	536	42	3
156	581	496	68	17
157	581	499	67	15
158	581	524	45	12
159	581	521	44	16

Model ID	Analyzed	Favored	Allowed	Outliers
160	581	529	44	8
161	581	511	63	7
162	581	525	47	9
163	581	520	54	7
164	581	506	62	13
165	581	513	57	11
166	581	527	47	7
167	581	526	45	10
168	581	520	56	5
169	581	515	53	13
170	581	530	39	12
171	581	534	35	12
172	581	526	44	11
173	581	515	57	9
174	581	530	42	9
175	581	538	36	7
176	581	536	35	10
177	581	528	44	9
178	581	519	50	12
179	581	521	48	12
180	581	526	44	11
181	581	524	46	11
182	581	528	41	12

Model ID	Analyzed	Favored	Allowed	Outliers
183	581	532	46	3
184	581	521	46	14
185	581	525	46	10
186	581	522	51	8
187	581	527	47	7
188	581	531	45	5
189	581	518	51	12
190	581	513	56	12
191	581	528	49	4
192	581	534	40	7
193	581	502	65	14
194	581	528	44	9
195	581	535	36	10
196	581	514	53	14
197	581	535	40	6
198	581	516	52	13
199	581	511	56	14
200	581	530	39	12
201	581	528	46	7
202	581	511	60	10
203	581	524	44	13
204	581	515	56	10
205	581	521	50	10

Model ID	Analyzed	Favored	Allowed	Outliers
206	581	535	34	12

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	524	332	89	103
2	524	340	84	100
3	524	323	98	103
4	524	321	101	102
5	524	321	98	105
6	524	445	46	33
7	524	441	56	27
8	524	434	65	25
9	524	341	81	102
10	524	448	47	29
11	524	453	54	17
12	524	435	62	27
13	524	316	103	105
14	524	432	74	18
15	524	439	60	25
16	524	444	58	22
17	524	451	54	19
18	524	450	53	21
19	524	326	85	113

Model ID	Analyzed	Favored	Allowed	Outliers
20	524	307	99	118
21	524	321	94	109
22	524	341	89	94
23	524	454	41	29
24	524	319	100	105
25	524	439	56	29
26	524	447	56	21
27	524	431	56	37
28	524	441	57	26
29	524	458	43	23
30	524	329	92	103
31	524	434	56	34
32	524	457	46	21
33	524	407	86	31
34	524	452	51	21
35	524	445	52	27
36	524	448	52	24
37	524	449	54	21
38	524	450	47	27
39	524	447	51	26
40	524	434	58	32
41	524	323	111	90
42	524	458	43	23

Model ID	Analyzed	Favored	Allowed	Outliers
43	524	422	63	39
44	524	331	93	100
45	524	466	39	19
46	524	413	71	40
47	524	442	55	27
48	524	452	54	18
49	524	460	45	19
50	524	340	88	96
51	524	451	50	23
52	524	440	53	31
53	524	329	90	105
54	524	315	98	111
55	524	354	84	86
56	524	326	90	108
57	524	445	57	22
58	524	451	55	18
59	524	449	47	28
60	524	424	59	41
61	524	419	55	50
62	524	443	54	27
63	524	449	49	26
64	524	432	65	27
65	524	429	66	29

Model ID	Analyzed	Favored	Allowed	Outliers
66	524	446	52	26
67	524	325	99	100
68	524	413	67	44
69	524	330	81	113
70	524	450	55	19
71	524	464	40	20
72	524	460	51	13
73	524	431	69	24
74	524	349	87	88
75	524	321	102	101
76	524	446	57	21
77	524	460	47	17
78	524	454	49	21
79	524	465	42	17
80	524	454	52	18
81	524	464	39	21
82	524	448	54	22
83	524	455	51	18
84	524	332	104	88
85	524	438	60	26
86	524	466	36	22
87	524	316	88	120
88	524	349	70	105

Model ID	Analyzed	Favored	Allowed	Outliers
89	524	336	88	100
90	524	443	58	23
91	524	417	66	41
92	524	428	61	35
93	524	442	53	29
94	524	339	90	95
95	524	457	51	16
96	524	341	87	96
97	524	436	59	29
98	524	349	80	95
99	524	440	62	22
100	524	450	57	17
101	524	453	51	20
102	524	414	72	38
103	524	447	54	23
104	524	414	68	42
105	524	458	43	23
106	524	441	58	25
107	524	455	49	20
108	524	453	45	26
109	524	446	58	20
110	524	450	51	23
111	524	439	64	21

Model ID	Analyzed	Favored	Allowed	Outliers
112	524	457	42	25
113	524	435	58	31
114	524	454	46	24
115	524	438	56	30
116	524	435	55	34
117	524	451	50	23
118	524	457	44	23
119	524	463	48	13
120	524	434	65	25
121	524	453	54	17
122	524	464	40	20
123	524	454	48	22
124	524	446	54	24
125	524	455	48	21
126	524	455	47	22
127	524	452	61	11
128	524	463	44	17
129	524	452	55	17
130	524	451	52	21
131	524	454	49	21
132	524	447	51	26
133	524	437	64	23
134	524	442	47	35

Model ID	Analyzed	Favored	Allowed	Outliers
135	524	454	48	22
136	524	458	50	16
137	524	450	50	24
138	524	452	51	21
139	524	447	55	22
140	524	452	53	19
141	524	437	54	33
142	524	337	74	113
143	524	433	68	23
144	524	461	40	23
145	524	432	71	21
146	524	450	52	22
147	524	441	54	29
148	524	436	54	34
149	524	445	62	17
150	524	458	45	21
151	524	431	63	30
152	524	447	47	30
153	524	341	86	97
154	524	443	55	26
155	524	422	68	34
156	524	448	57	19
157	524	428	60	36

Model ID	Analyzed	Favored	Allowed	Outliers
158	524	437	55	32
159	524	423	68	33
160	524	439	56	29
161	524	455	52	17
162	524	430	59	35
163	524	446	60	18
164	524	434	61	29
165	524	320	96	108
166	524	452	51	21
167	524	343	81	100
168	524	355	80	89
169	524	446	55	23
170	524	447	57	20
171	524	445	57	22
172	524	448	59	17
173	524	451	49	24
174	524	435	61	28
175	524	430	63	31
176	524	338	89	97
177	524	332	98	94
178	524	443	61	20
179	524	460	46	18
180	524	434	65	25

Model ID	Analyzed	Favored	Allowed	Outliers
181	524	318	93	113
182	524	324	96	104
183	524	299	102	123
184	524	333	99	92
185	524	345	86	93
186	524	441	52	31
187	524	335	97	92
188	524	330	86	108
189	524	465	39	20
190	524	432	58	34
191	524	452	43	29
192	524	441	61	22
193	524	417	70	37
194	524	334	94	96
195	524	322	102	100
196	524	350	94	80
197	524	460	47	17
198	524	426	63	35
199	524	448	55	21
200	524	316	99	109
201	524	427	62	35
202	524	446	53	25
203	524	429	62	33

Model ID	Analyzed	Favored	Allowed	Outliers
204	524	445	51	28
205	524	418	70	36
206	524	427	66	31

Detailed list of outliers are tabulated below.

Model ID	Chain	Residue ID	Residue type
1	A	5	ILE
1	A	6	HIS
1	A	13	LEU
1	A	16	ASN
1	A	39	VAL
1	A	40	VAL
1	A	41	VAL
1	A	48	ARG
1	A	55	MET
1	A	58	LEU
1	A	61	LYS
1	A	71	VAL
1	A	78	ILE
1	A	80	MET
1	A	83	VAL
1	A	88	LYS
1	A	101	LEU
1	A	106	LYS

Model ID	Chain	Residue ID	Residue type
1	A	111	ASN
1	A	114	TRP
1	A	120	VAL
1	A	131	ILE
1	A	134	ILE
1	A	137	GLN
1	A	139	MET
1	A	145	VAL
1	A	155	LYS
1	A	165	VAL
1	A	166	GLU
1	A	171	PHE
1	A	174	PHE
1	A	179	VAL
1	A	181	THR
1	A	182	LEU
1	A	187	LEU
1	A	201	TYR
1	A	207	LYS
1	A	227	ARG
1	A	237	VAL
1	A	239	ASP
1	A	240	ARG

Model ID	Chain	Residue ID	Residue type
1	A	247	LEU
1	A	252	LYS
1	A	253	LEU
1	A	258	LEU
1	A	264	GLN
1	A	274	PHE
1	A	280	LYS
1	A	282	LEU
1	A	288	VAL
1	A	292	ARG
1	A	293	LEU
1	A	294	GLU
1	A	296	LEU
1	A	309	LEU
1	A	322	ILE
1	A	335	TYR
1	A	338	GLN
1	A	350	LEU
1	A	353	LEU
1	A	357	HIS
1	A	367	VAL
1	A	370	ARG
1	A	374	LYS

Model ID	Chain	Residue ID	Residue type
1	A	375	ASP
1	A	384	LEU
1	A	392	ARG
1	A	397	LYS
1	A	406	ARG
1	A	426	ILE
1	A	433	TYR
1	A	435	LEU
1	A	439	LYS
1	A	440	LEU
1	A	443	LEU
1	A	445	LYS
1	A	447	TYR
1	A	461	LEU
1	A	473	ASP
1	A	475	ILE
1	A	477	GLN
1	A	480	GLN
1	A	486	GLU
1	A	494	VAL
1	A	495	LYS
1	A	505	MET
1	A	507	HIS

Model ID	Chain	Residue ID	Residue type
1	A	512	LYS
1	A	528	LEU
1	A	529	LYS
1	A	531	LEU
1	A	533	GLU
1	A	534	LYS
1	A	539	ARG
1	A	542	LEU
1	A	543	LEU
1	A	548	ARG
1	A	552	LEU
1	A	560	LEU
1	A	561	LEU
1	A	565	PHE
1	A	576	ILE
1	A	579	LEU
2	A	13	LEU
2	A	21	LEU
2	A	40	VAL
2	A	41	VAL
2	A	44	VAL
2	A	46	LEU
2	A	47	TYR

Model ID	Chain	Residue ID	Residue type
2	A	54	LEU
2	A	57	LYS
2	A	58	LEU
2	A	61	LYS
2	A	78	ILE
2	A	80	MET
2	A	81	TRP
2	A	82	CYS
2	A	99	GLU
2	A	101	LEU
2	A	103	ASP
2	A	104	VAL
2	A	114	TRP
2	A	115	ILE
2	A	118	LEU
2	A	137	GLN
2	A	140	ASP
2	A	143	TYR
2	A	145	VAL
2	A	160	GLU
2	A	163	ASN
2	A	165	VAL
2	A	174	PHE

Model ID	Chain	Residue ID	Residue type
2	A	187	LEU
2	A	189	LEU
2	A	190	GLU
2	A	201	TYR
2	A	226	ILE
2	A	228	LYS
2	A	243	HIS
2	A	245	ARG
2	A	249	GLN
2	A	258	LEU
2	A	264	GLN
2	A	274	PHE
2	A	278	LYS
2	A	279	THR
2	A	281	THR
2	A	282	LEU
2	A	287	GLN
2	A	292	ARG
2	A	298	LEU
2	A	301	VAL
2	A	310	PRO
2	A	322	ILE
2	A	341	GLN

Model ID	Chain	Residue ID	Residue type
2	A	344	GLN
2	A	345	LEU
2	A	349	SER
2	A	353	LEU
2	A	356	LEU
2	A	368	PHE
2	A	378	HIS
2	A	380	PHE
2	A	384	LEU
2	A	388	LEU
2	A	391	LYS
2	A	395	PHE
2	A	397	LYS
2	A	399	ASN
2	A	404	SER
2	A	418	LEU
2	A	421	GLU
2	A	423	LYS
2	A	427	TYR
2	A	435	LEU
2	A	437	VAL
2	A	439	LYS
2	A	444	LYS

Model ID	Chain	Residue ID	Residue type
2	A	446	LYS
2	A	453	LYS
2	A	455	ILE
2	A	458	GLU
2	A	475	ILE
2	A	478	THR
2	A	482	LEU
2	A	485	LYS
2	A	487	LYS
2	A	489	ILE
2	A	490	GLU
2	A	491	VAL
2	A	494	VAL
2	A	504	LYS
2	A	506	LEU
2	A	515	GLN
2	A	540	VAL
2	A	542	LEU
2	A	544	LYS
2	A	554	LEU
2	A	561	LEU
2	A	565	PHE
2	A	570	ARG

Model ID	Chain	Residue ID	Residue type
2	A	579	LEU
3	A	8	THR
3	A	17	THR
3	A	21	LEU
3	A	29	LYS
3	A	34	ILE
3	A	46	LEU
3	A	51	LYS
3	A	53	TYR
3	A	54	LEU
3	A	61	LYS
3	A	67	LEU
3	A	71	VAL
3	A	78	ILE
3	A	94	VAL
3	A	99	GLU
3	A	101	LEU
3	A	104	VAL
3	A	105	GLU
3	A	114	TRP
3	A	121	LEU
3	A	128	TYR
3	A	134	ILE

Model ID	Chain	Residue ID	Residue type
3	A	137	GLN
3	A	140	ASP
3	A	145	VAL
3	A	147	GLU
3	A	151	ARG
3	A	153	ARG
3	A	155	LYS
3	A	165	VAL
3	A	189	LEU
3	A	201	TYR
3	A	216	ASP
3	A	223	ARG
3	A	224	LEU
3	A	226	ILE
3	A	229	PHE
3	A	233	LYS
3	A	237	VAL
3	A	247	LEU
3	A	265	GLN
3	A	274	PHE
3	A	279	THR
3	A	282	LEU
3	A	286	ILE

Model ID	Chain	Residue ID	Residue type
3	A	287	GLN
3	A	292	ARG
3	A	294	GLU
3	A	298	LEU
3	A	301	VAL
3	A	309	LEU
3	A	313	GLU
3	A	322	ILE
3	A	324	ASN
3	A	328	VAL
3	A	337	GLN
3	A	344	GLN
3	A	346	PRO
3	A	348	GLU
3	A	350	LEU
3	A	354	LEU
3	A	356	LEU
3	A	366	GLU
3	A	384	LEU
3	A	387	GLN
3	A	388	LEU
3	A	391	LYS
3	A	392	ARG

Model ID	Chain	Residue ID	Residue type
3	A	399	ASN
3	A	403	SER
3	A	404	SER
3	A	406	ARG
3	A	410	LEU
3	A	411	LEU
3	A	413	VAL
3	A	415	PHE
3	A	418	LEU
3	A	421	GLU
3	A	422	VAL
3	A	435	LEU
3	A	437	VAL
3	A	453	LYS
3	A	455	ILE
3	A	459	GLU
3	A	466	LYS
3	A	475	ILE
3	A	480	GLN
3	A	497	GLU
3	A	511	ARG
3	A	520	LYS
3	A	526	GLU

Model ID	Chain	Residue ID	Residue type
3	A	528	LEU
3	A	531	LEU
3	A	550	LEU
3	A	553	LYS
3	A	554	LEU
3	A	555	GLN
3	A	557	GLN
3	A	561	LEU
3	A	570	ARG
3	A	576	ILE
3	A	581	THR
3	A	582	LYS
4	A	5	ILE
4	A	6	HIS
4	A	7	MET
4	A	13	LEU
4	A	34	ILE
4	A	38	MET
4	A	39	VAL
4	A	46	LEU
4	A	52	SER
4	A	55	MET
4	A	65	PHE

Model ID	Chain	Residue ID	Residue type
4	A	67	LEU
4	A	74	HIS
4	A	75	THR
4	A	78	ILE
4	A	81	TRP
4	A	88	LYS
4	A	93	LEU
4	A	99	GLU
4	A	103	ASP
4	A	104	VAL
4	A	106	LYS
4	A	110	GLN
4	A	114	TRP
4	A	115	ILE
4	A	116	PHE
4	A	127	VAL
4	A	128	TYR
4	A	129	ASN
4	A	136	GLN
4	A	143	TYR
4	A	145	VAL
4	A	152	ILE
4	A	155	LYS

Model ID	Chain	Residue ID	Residue type
4	A	166	GLU
4	A	172	VAL
4	A	175	PHE
4	A	182	LEU
4	A	188	ASP
4	A	204	TYR
4	A	207	LYS
4	A	210	LYS
4	A	225	CYS
4	A	227	ARG
4	A	230	PHE
4	A	237	VAL
4	A	247	LEU
4	A	273	ILE
4	A	274	PHE
4	A	281	THR
4	A	282	LEU
4	A	288	VAL
4	A	292	ARG
4	A	294	GLU
4	A	309	LEU
4	A	317	LEU
4	A	332	ILE

Model ID	Chain	Residue ID	Residue type
4	A	335	TYR
4	A	343	VAL
4	A	348	GLU
4	A	350	LEU
4	A	354	LEU
4	A	356	LEU
4	A	357	HIS
4	A	361	GLU
4	A	367	VAL
4	A	369	ILE
4	A	400	GLN
4	A	418	LEU
4	A	423	LYS
4	A	433	TYR
4	A	434	ARG
4	A	439	LYS
4	A	445	LYS
4	A	447	TYR
4	A	453	LYS
4	A	458	GLU
4	A	464	TYR
4	A	465	LEU
4	A	469	GLU

Model ID	Chain	Residue ID	Residue type
4	A	482	LEU
4	A	490	GLU
4	A	497	GLU
4	A	504	LYS
4	A	505	MET
4	A	506	LEU
4	A	524	TYR
4	A	531	LEU
4	A	533	GLU
4	A	543	LEU
4	A	547	GLU
4	A	549	THR
4	A	552	LEU
4	A	554	LEU
4	A	556	GLU
4	A	560	LEU
4	A	561	LEU
4	A	568	GLU
4	A	573	LYS
4	A	576	ILE
4	A	579	LEU
4	A	582	LYS
5	A	7	MET

Model ID	Chain	Residue ID	Residue type
5	A	13	LEU
5	A	14	ILE
5	A	15	GLU
5	A	22	MET
5	A	28	LEU
5	A	36	GLN
5	A	40	VAL
5	A	46	LEU
5	A	48	ARG
5	A	51	LYS
5	A	54	LEU
5	A	56	ASN
5	A	58	LEU
5	A	61	LYS
5	A	62	LYS
5	A	67	LEU
5	A	71	VAL
5	A	74	HIS
5	A	78	ILE
5	A	81	TRP
5	A	96	LEU
5	A	99	GLU
5	A	104	VAL

Model ID	Chain	Residue ID	Residue type
5	A	110	GLN
5	A	112	ASP
5	A	114	TRP
5	A	145	VAL
5	A	153	ARG
5	A	155	LYS
5	A	165	VAL
5	A	174	PHE
5	A	187	LEU
5	A	189	LEU
5	A	190	GLU
5	A	192	ASP
5	A	201	TYR
5	A	208	LEU
5	A	216	ASP
5	A	220	ASN
5	A	221	LEU
5	A	226	ILE
5	A	229	PHE
5	A	235	CYS
5	A	237	VAL
5	A	247	LEU
5	A	254	GLN

Model ID	Chain	Residue ID	Residue type
5	A	265	GLN
5	A	266	VAL
5	A	281	THR
5	A	282	LEU
5	A	286	ILE
5	A	287	GLN
5	A	292	ARG
5	A	293	LEU
5	A	298	LEU
5	A	301	VAL
5	A	309	LEU
5	A	316	VAL
5	A	317	LEU
5	A	322	ILE
5	A	330	LYS
5	A	342	LYS
5	A	346	PRO
5	A	350	LEU
5	A	353	LEU
5	A	370	ARG
5	A	379	LEU
5	A	382	LYS
5	A	384	LEU

Model ID	Chain	Residue ID	Residue type
5	A	390	LYS
5	A	397	LYS
5	A	410	LEU
5	A	418	LEU
5	A	421	GLU
5	A	423	LYS
5	A	437	VAL
5	A	438	GLN
5	A	440	LEU
5	A	442	ASP
5	A	453	LYS
5	A	461	LEU
5	A	465	LEU
5	A	476	LEU
5	A	486	GLU
5	A	488	GLU
5	A	491	VAL
5	A	493	ARG
5	A	500	GLN
5	A	511	ARG
5	A	528	LEU
5	A	531	LEU
5	A	538	ASP

Model ID	Chain	Residue ID	Residue type
5	A	539	ARG
5	A	543	LEU
5	A	545	GLU
5	A	548	ARG
5	A	550	LEU
5	A	552	LEU
5	A	553	LYS
5	A	561	LEU
5	A	563	GLU
5	A	565	PHE
5	A	567	LYS
5	A	583	MET
6	A	41	VAL
6	A	51	LYS
6	A	61	LYS
6	A	62	LYS
6	A	67	LEU
6	A	94	VAL
6	A	101	LEU
6	A	121	LEU
6	A	127	VAL
6	A	133	THR
6	A	136	GLN

Model ID	Chain	Residue ID	Residue type
6	A	151	ARG
6	A	162	GLU
6	A	179	VAL
6	A	189	LEU
6	A	196	LEU
6	A	223	ARG
6	A	229	PHE
6	A	231	PRO
6	A	242	VAL
6	A	253	LEU
6	A	292	ARG
6	A	293	LEU
6	A	294	GLU
6	A	353	LEU
6	A	392	ARG
6	A	422	VAL
6	A	436	PHE
6	A	453	LYS
6	A	482	LEU
6	A	488	GLU
6	A	550	LEU
6	A	566	GLN
7	A	13	LEU

Model ID	Chain	Residue ID	Residue type
7	A	32	SER
7	A	51	LYS
7	A	55	MET
7	A	61	LYS
7	A	67	LEU
7	A	108	ASP
7	A	122	LEU
7	A	124	SER
7	A	134	ILE
7	A	151	ARG
7	A	177	ASP
7	A	189	LEU
7	A	229	PHE
7	A	288	VAL
7	A	294	GLU
7	A	324	ASN
7	A	343	VAL
7	A	353	LEU
7	A	358	ARG
7	A	392	ARG
7	A	420	GLU
7	A	453	LYS
7	A	466	LYS

Model ID	Chain	Residue ID	Residue type
7	A	471	MET
7	A	476	LEU
7	A	576	ILE
8	A	72	GLN
8	A	131	ILE
8	A	136	GLN
8	A	151	ARG
8	A	161	ASN
8	A	162	GLU
8	A	189	LEU
8	A	217	GLU
8	A	229	PHE
8	A	233	LYS
8	A	253	LEU
8	A	258	LEU
8	A	286	ILE
8	A	292	ARG
8	A	293	LEU
8	A	295	SER
8	A	314	ASN
8	A	343	VAL
8	A	353	LEU
8	A	381	GLN

Model ID	Chain	Residue ID	Residue type
8	A	392	ARG
8	A	453	LYS
8	A	459	GLU
8	A	543	LEU
8	A	566	GLN
9	A	11	MET
9	A	13	LEU
9	A	14	ILE
9	A	20	ARG
9	A	29	LYS
9	A	31	LEU
9	A	35	THR
9	A	39	VAL
9	A	40	VAL
9	A	46	LEU
9	A	54	LEU
9	A	55	MET
9	A	58	LEU
9	A	61	LYS
9	A	67	LEU
9	A	78	ILE
9	A	80	MET
9	A	88	LYS

Model ID	Chain	Residue ID	Residue type
9	A	93	LEU
9	A	94	VAL
9	A	96	LEU
9	A	101	LEU
9	A	106	LYS
9	A	114	TRP
9	A	115	ILE
9	A	120	VAL
9	A	121	LEU
9	A	122	LEU
9	A	139	MET
9	A	151	ARG
9	A	152	ILE
9	A	155	LYS
9	A	174	PHE
9	A	175	PHE
9	A	176	PRO
9	A	182	LEU
9	A	183	ARG
9	A	187	LEU
9	A	190	GLU
9	A	201	TYR
9	A	202	LEU

Model ID	Chain	Residue ID	Residue type
9	A	206	LEU
9	A	209	LYS
9	A	223	ARG
9	A	226	ILE
9	A	229	PHE
9	A	254	GLN
9	A	259	ASP
9	A	265	GLN
9	A	270	CYS
9	A	276	ASN
9	A	279	THR
9	A	282	LEU
9	A	292	ARG
9	A	294	GLU
9	A	309	LEU
9	A	316	VAL
9	A	321	GLN
9	A	323	GLU
9	A	350	LEU
9	A	363	GLU
9	A	373	PHE
9	A	379	LEU
9	A	384	LEU

Model ID	Chain	Residue ID	Residue type
9	A	391	LYS
9	A	400	GLN
9	A	418	LEU
9	A	423	LYS
9	A	426	ILE
9	A	434	ARG
9	A	435	LEU
9	A	437	VAL
9	A	439	LYS
9	A	447	TYR
9	A	453	LYS
9	A	466	LYS
9	A	467	SER
9	A	476	LEU
9	A	477	GLN
9	A	479	ASP
9	A	480	GLN
9	A	482	LEU
9	A	483	THR
9	A	490	GLU
9	A	493	ARG
9	A	504	LYS
9	A	510	GLN

Model ID	Chain	Residue ID	Residue type
9	A	520	LYS
9	A	529	LYS
9	A	531	LEU
9	A	536	GLU
9	A	539	ARG
9	A	541	GLN
9	A	542	LEU
9	A	554	LEU
9	A	557	GLN
9	A	561	LEU
9	A	565	PHE
9	A	567	LYS
9	A	572	MET
9	A	579	LEU
9	A	582	LYS
10	A	39	VAL
10	A	41	VAL
10	A	67	LEU
10	A	86	PRO
10	A	131	ILE
10	A	179	VAL
10	A	180	TRP
10	A	186	SER

Model ID	Chain	Residue ID	Residue type
10	A	195	PRO
10	A	209	LYS
10	A	217	GLU
10	A	220	ASN
10	A	223	ARG
10	A	224	LEU
10	A	229	PHE
10	A	261	GLU
10	A	292	ARG
10	A	345	LEU
10	A	350	LEU
10	A	357	HIS
10	A	433	TYR
10	A	435	LEU
10	A	453	LYS
10	A	506	LEU
10	A	516	MET
10	A	528	LEU
10	A	529	LYS
10	A	553	LYS
10	A	566	GLN
11	A	13	LEU
11	A	49	THR

Model ID	Chain	Residue ID	Residue type
11	A	112	ASP
11	A	146	THR
11	A	165	VAL
11	A	212	THR
11	A	231	PRO
11	A	250	LEU
11	A	291	PRO
11	A	292	ARG
11	A	356	LEU
11	A	395	PHE
11	A	413	VAL
11	A	463	THR
11	A	482	LEU
11	A	490	GLU
11	A	569	SER
12	A	14	ILE
12	A	41	VAL
12	A	83	VAL
12	A	108	ASP
12	A	148	LEU
12	A	165	VAL
12	A	189	LEU
12	A	208	LEU

Model ID	Chain	Residue ID	Residue type
12	A	233	LYS
12	A	266	VAL
12	A	292	ARG
12	A	310	PRO
12	A	328	VAL
12	A	345	LEU
12	A	350	LEU
12	A	360	SER
12	A	395	PHE
12	A	400	GLN
12	A	423	LYS
12	A	435	LEU
12	A	482	LEU
12	A	484	GLU
12	A	528	LEU
12	A	554	LEU
12	A	560	LEU
12	A	570	ARG
12	A	579	LEU
13	A	5	ILE
13	A	10	PRO
13	A	13	LEU
13	A	21	LEU

Model ID	Chain	Residue ID	Residue type
13	A	40	VAL
13	A	56	ASN
13	A	61	LYS
13	A	62	LYS
13	A	67	LEU
13	A	74	HIS
13	A	78	ILE
13	A	87	LYS
13	A	92	ILE
13	A	94	VAL
13	A	101	LEU
13	A	109	ASN
13	A	114	TRP
13	A	120	VAL
13	A	121	LEU
13	A	127	VAL
13	A	143	TYR
13	A	145	VAL
13	A	151	ARG
13	A	162	GLU
13	A	167	ASP
13	A	174	PHE
13	A	175	PHE

Model ID	Chain	Residue ID	Residue type
13	A	180	TRP
13	A	181	THR
13	A	183	ARG
13	A	204	TYR
13	A	215	LYS
13	A	218	THR
13	A	223	ARG
13	A	229	PHE
13	A	233	LYS
13	A	234	LYS
13	A	237	VAL
13	A	244	ARG
13	A	247	LEU
13	A	254	GLN
13	A	263	VAL
13	A	265	GLN
13	A	266	VAL
13	A	282	LEU
13	A	287	GLN
13	A	288	VAL
13	A	296	LEU
13	A	298	LEU
13	A	309	LEU

Model ID	Chain	Residue ID	Residue type
13	A	312	MET
13	A	313	GLU
13	A	316	VAL
13	A	317	LEU
13	A	332	ILE
13	A	343	VAL
13	A	353	LEU
13	A	358	ARG
13	A	361	GLU
13	A	365	ILE
13	A	367	VAL
13	A	374	LYS
13	A	382	LYS
13	A	383	GLU
13	A	398	GLN
13	A	406	ARG
13	A	420	GLU
13	A	421	GLU
13	A	423	LYS
13	A	426	ILE
13	A	429	LYS
13	A	435	LEU
13	A	437	VAL

Model ID	Chain	Residue ID	Residue type
13	A	438	GLN
13	A	439	LYS
13	A	441	GLN
13	A	442	ASP
13	A	446	LYS
13	A	452	ARG
13	A	455	ILE
13	A	456	GLN
13	A	461	LEU
13	A	465	LEU
13	A	466	LYS
13	A	473	ASP
13	A	478	THR
13	A	482	LEU
13	A	487	LYS
13	A	495	LYS
13	A	506	LEU
13	A	512	LYS
13	A	514	GLU
13	A	516	MET
13	A	531	LEU
13	A	537	ASN
13	A	540	VAL

Model ID	Chain	Residue ID	Residue type
13	A	542	LEU
13	A	543	LEU
13	A	550	LEU
13	A	552	LEU
13	A	553	LYS
13	A	561	LEU
13	A	562	LYS
13	A	565	PHE
13	A	579	LEU
14	A	21	LEU
14	A	30	ILE
14	A	46	LEU
14	A	165	VAL
14	A	179	VAL
14	A	192	ASP
14	A	196	LEU
14	A	208	LEU
14	A	229	PHE
14	A	292	ARG
14	A	297	VAL
14	A	319	LEU
14	A	435	LEU
14	A	455	ILE

Model ID	Chain	Residue ID	Residue type
14	A	469	GLU
14	A	490	GLU
14	A	528	LEU
14	A	560	LEU
15	A	36	GLN
15	A	83	VAL
15	A	92	ILE
15	A	151	ARG
15	A	162	GLU
15	A	182	LEU
15	A	215	LYS
15	A	223	ARG
15	A	253	LEU
15	A	308	ASP
15	A	316	VAL
15	A	317	LEU
15	A	325	SER
15	A	345	LEU
15	A	356	LEU
15	A	369	ILE
15	A	407	CYS
15	A	413	VAL
15	A	440	LEU

Model ID	Chain	Residue ID	Residue type
15	A	456	GLN
15	A	468	LYS
15	A	491	VAL
15	A	528	LEU
15	A	543	LEU
15	A	561	LEU
16	A	67	LEU
16	A	82	CYS
16	A	83	VAL
16	A	92	ILE
16	A	126	PHE
16	A	182	LEU
16	A	189	LEU
16	A	223	ARG
16	A	297	VAL
16	A	298	LEU
16	A	345	LEU
16	A	356	LEU
16	A	363	GLU
16	A	401	GLU
16	A	404	SER
16	A	418	LEU
16	A	456	GLN

Model ID	Chain	Residue ID	Residue type
16	A	465	LEU
16	A	468	LYS
16	A	525	GLN
16	A	543	LEU
16	A	561	LEU
17	A	4	GLU
17	A	43	ILE
17	A	63	LYS
17	A	67	LEU
17	A	94	VAL
17	A	104	VAL
17	A	114	TRP
17	A	161	ASN
17	A	175	PHE
17	A	189	LEU
17	A	206	LEU
17	A	223	ARG
17	A	280	LYS
17	A	321	GLN
17	A	418	LEU
17	A	435	LEU
17	A	467	SER
17	A	468	LYS

Model ID	Chain	Residue ID	Residue type
17	A	543	LEU
18	A	13	LEU
18	A	40	VAL
18	A	48	ARG
18	A	57	LYS
18	A	80	MET
18	A	148	LEU
18	A	196	LEU
18	A	202	LEU
18	A	204	TYR
18	A	214	GLN
18	A	224	LEU
18	A	229	PHE
18	A	242	VAL
18	A	263	VAL
18	A	362	ARG
18	A	379	LEU
18	A	484	GLU
18	A	504	LYS
18	A	534	LYS
18	A	560	LEU
18	A	579	LEU
19	A	5	ILE

Model ID	Chain	Residue ID	Residue type
19	A	7	MET
19	A	13	LEU
19	A	29	LYS
19	A	31	LEU
19	A	39	VAL
19	A	46	LEU
19	A	48	ARG
19	A	54	LEU
19	A	58	LEU
19	A	61	LYS
19	A	71	VAL
19	A	78	ILE
19	A	80	MET
19	A	85	HIS
19	A	88	LYS
19	A	94	VAL
19	A	96	LEU
19	A	99	GLU
19	A	113	SER
19	A	114	TRP
19	A	115	ILE
19	A	121	LEU
19	A	122	LEU

Model ID	Chain	Residue ID	Residue type
19	A	129	ASN
19	A	136	GLN
19	A	145	VAL
19	A	146	THR
19	A	151	ARG
19	A	160	GLU
19	A	162	GLU
19	A	165	VAL
19	A	170	ASP
19	A	175	PHE
19	A	179	VAL
19	A	182	LEU
19	A	187	LEU
19	A	189	LEU
19	A	201	TYR
19	A	202	LEU
19	A	209	LYS
19	A	217	GLU
19	A	223	ARG
19	A	226	ILE
19	A	228	LYS
19	A	229	PHE
19	A	232	LYS

Model ID	Chain	Residue ID	Residue type
19	A	236	PHE
19	A	247	LEU
19	A	265	GLN
19	A	273	ILE
19	A	274	PHE
19	A	282	LEU
19	A	288	VAL
19	A	292	ARG
19	A	293	LEU
19	A	298	LEU
19	A	313	GLU
19	A	322	ILE
19	A	336	GLU
19	A	337	GLN
19	A	343	VAL
19	A	350	LEU
19	A	356	LEU
19	A	357	HIS
19	A	367	VAL
19	A	374	LYS
19	A	375	ASP
19	A	390	LYS
19	A	397	LYS

Model ID	Chain	Residue ID	Residue type
19	A	399	ASN
19	A	400	GLN
19	A	406	ARG
19	A	413	VAL
19	A	414	ILE
19	A	426	ILE
19	A	434	ARG
19	A	435	LEU
19	A	436	PHE
19	A	437	VAL
19	A	439	LYS
19	A	445	LYS
19	A	447	TYR
19	A	453	LYS
19	A	458	GLU
19	A	459	GLU
19	A	461	LEU
19	A	464	TYR
19	A	466	LYS
19	A	475	ILE
19	A	480	GLN
19	A	490	GLU
19	A	493	ARG

Model ID	Chain	Residue ID	Residue type
19	A	494	VAL
19	A	505	MET
19	A	528	LEU
19	A	529	LYS
19	A	530	GLN
19	A	536	GLU
19	A	539	ARG
19	A	540	VAL
19	A	542	LEU
19	A	554	LEU
19	A	555	GLN
19	A	560	LEU
19	A	562	LYS
19	A	563	GLU
19	A	565	PHE
19	A	567	LYS
19	A	570	ARG
19	A	573	LYS
19	A	577	GLN
19	A	582	LYS
20	A	4	GLU
20	A	7	MET
20	A	11	MET

Model ID	Chain	Residue ID	Residue type
20	A	13	LEU
20	A	39	VAL
20	A	40	VAL
20	A	41	VAL
20	A	48	ARG
20	A	49	THR
20	A	57	LYS
20	A	69	SER
20	A	78	ILE
20	A	80	MET
20	A	110	GLN
20	A	114	TRP
20	A	115	ILE
20	A	120	VAL
20	A	123	SER
20	A	125	THR
20	A	129	ASN
20	A	145	VAL
20	A	155	LYS
20	A	159	ASP
20	A	160	GLU
20	A	162	GLU
20	A	165	VAL

Model ID	Chain	Residue ID	Residue type
20	A	174	PHE
20	A	175	PHE
20	A	179	VAL
20	A	187	LEU
20	A	189	LEU
20	A	201	TYR
20	A	202	LEU
20	A	204	TYR
20	A	208	LEU
20	A	224	LEU
20	A	229	PHE
20	A	234	LYS
20	A	251	GLU
20	A	252	LYS
20	A	256	GLU
20	A	259	ASP
20	A	263	VAL
20	A	265	GLN
20	A	271	SER
20	A	287	GLN
20	A	288	VAL
20	A	292	ARG
20	A	294	GLU

Model ID	Chain	Residue ID	Residue type
20	A	297	VAL
20	A	302	ASN
20	A	309	LEU
20	A	319	LEU
20	A	330	LYS
20	A	337	GLN
20	A	342	LYS
20	A	346	PRO
20	A	354	LEU
20	A	356	LEU
20	A	358	ARG
20	A	362	ARG
20	A	366	GLU
20	A	367	VAL
20	A	369	ILE
20	A	373	PHE
20	A	379	LEU
20	A	383	GLU
20	A	384	LEU
20	A	387	GLN
20	A	388	LEU
20	A	390	LYS
20	A	391	LYS

Model ID	Chain	Residue ID	Residue type
20	A	399	ASN
20	A	406	ARG
20	A	413	VAL
20	A	423	LYS
20	A	429	LYS
20	A	434	ARG
20	A	435	LEU
20	A	449	GLU
20	A	452	ARG
20	A	453	LYS
20	A	460	ILE
20	A	464	TYR
20	A	465	LEU
20	A	466	LYS
20	A	469	GLU
20	A	473	ASP
20	A	476	LEU
20	A	477	GLN
20	A	482	LEU
20	A	487	LYS
20	A	490	GLU
20	A	491	VAL
20	A	497	GLU

Model ID	Chain	Residue ID	Residue type
20	A	504	LYS
20	A	506	LEU
20	A	508	GLU
20	A	511	ARG
20	A	516	MET
20	A	529	LYS
20	A	531	LEU
20	A	533	GLU
20	A	541	GLN
20	A	545	GLU
20	A	546	GLN
20	A	547	GLU
20	A	552	LEU
20	A	554	LEU
20	A	556	GLU
20	A	560	LEU
20	A	561	LEU
20	A	565	PHE
20	A	567	LYS
20	A	568	GLU
20	A	573	LYS
20	A	576	ILE
20	A	581	THR

Model ID	Chain	Residue ID	Residue type
21	A	5	ILE
21	A	11	MET
21	A	13	LEU
21	A	21	LEU
21	A	40	VAL
21	A	41	VAL
21	A	44	VAL
21	A	46	LEU
21	A	56	ASN
21	A	61	LYS
21	A	65	PHE
21	A	67	LEU
21	A	78	ILE
21	A	81	TRP
21	A	87	LYS
21	A	96	LEU
21	A	101	LEU
21	A	104	VAL
21	A	105	GLU
21	A	112	ASP
21	A	114	TRP
21	A	115	ILE
21	A	125	THR

Model ID	Chain	Residue ID	Residue type
21	A	128	TYR
21	A	131	ILE
21	A	134	ILE
21	A	143	TYR
21	A	145	VAL
21	A	146	THR
21	A	153	ARG
21	A	155	LYS
21	A	164	GLU
21	A	167	ASP
21	A	170	ASP
21	A	172	VAL
21	A	183	ARG
21	A	187	LEU
21	A	189	LEU
21	A	194	GLN
21	A	201	TYR
21	A	202	LEU
21	A	208	LEU
21	A	215	LYS
21	A	217	GLU
21	A	219	PHE
21	A	223	ARG

Model ID	Chain	Residue ID	Residue type
21	A	224	LEU
21	A	228	LYS
21	A	229	PHE
21	A	237	VAL
21	A	238	PHE
21	A	239	ASP
21	A	244	ARG
21	A	249	GLN
21	A	258	LEU
21	A	264	GLN
21	A	278	LYS
21	A	282	LEU
21	A	286	ILE
21	A	292	ARG
21	A	293	LEU
21	A	301	VAL
21	A	313	GLU
21	A	316	VAL
21	A	317	LEU
21	A	335	TYR
21	A	339	MET
21	A	353	LEU
21	A	356	LEU

Model ID	Chain	Residue ID	Residue type
21	A	365	ILE
21	A	374	LYS
21	A	382	LYS
21	A	389	GLU
21	A	400	GLN
21	A	406	ARG
21	A	410	LEU
21	A	415	PHE
21	A	418	LEU
21	A	427	TYR
21	A	429	LYS
21	A	440	LEU
21	A	441	GLN
21	A	446	LYS
21	A	448	TYR
21	A	453	LYS
21	A	461	LEU
21	A	462	GLN
21	A	465	LEU
21	A	480	GLN
21	A	487	LYS
21	A	493	ARG
21	A	494	VAL

Model ID	Chain	Residue ID	Residue type
21	A	506	LEU
21	A	507	HIS
21	A	512	LYS
21	A	514	GLU
21	A	516	MET
21	A	536	GLU
21	A	543	LEU
21	A	548	ARG
21	A	552	LEU
21	A	553	LYS
21	A	554	LEU
21	A	561	LEU
21	A	566	GLN
21	A	575	GLU
21	A	577	GLN
21	A	580	GLN
21	A	582	LYS
22	A	6	HIS
22	A	13	LEU
22	A	28	LEU
22	A	31	LEU
22	A	40	VAL
22	A	41	VAL

Model ID	Chain	Residue ID	Residue type
22	A	46	LEU
22	A	48	ARG
22	A	54	LEU
22	A	61	LYS
22	A	72	GLN
22	A	78	ILE
22	A	80	MET
22	A	88	LYS
22	A	91	HIS
22	A	94	VAL
22	A	99	GLU
22	A	106	LYS
22	A	114	TRP
22	A	115	ILE
22	A	121	LEU
22	A	122	LEU
22	A	137	GLN
22	A	145	VAL
22	A	163	ASN
22	A	171	PHE
22	A	182	LEU
22	A	206	LEU
22	A	210	LYS

Model ID	Chain	Residue ID	Residue type
22	A	223	ARG
22	A	233	LYS
22	A	234	LYS
22	A	247	LEU
22	A	255	ASP
22	A	266	VAL
22	A	282	LEU
22	A	292	ARG
22	A	298	LEU
22	A	302	ASN
22	A	313	GLU
22	A	322	ILE
22	A	329	GLN
22	A	335	TYR
22	A	338	GLN
22	A	339	MET
22	A	350	LEU
22	A	354	LEU
22	A	367	VAL
22	A	369	ILE
22	A	370	ARG
22	A	373	PHE
22	A	374	LYS

Model ID	Chain	Residue ID	Residue type
22	A	377	ASP
22	A	378	HIS
22	A	387	GLN
22	A	390	LYS
22	A	398	GLN
22	A	413	VAL
22	A	418	LEU
22	A	419	GLU
22	A	421	GLU
22	A	423	LYS
22	A	434	ARG
22	A	437	VAL
22	A	440	LEU
22	A	445	LYS
22	A	447	TYR
22	A	458	GLU
22	A	459	GLU
22	A	465	LEU
22	A	466	LYS
22	A	477	GLN
22	A	482	LEU
22	A	483	THR
22	A	491	VAL

Model ID	Chain	Residue ID	Residue type
22	A	506	LEU
22	A	508	GLU
22	A	511	ARG
22	A	528	LEU
22	A	529	LYS
22	A	534	LYS
22	A	543	LEU
22	A	547	GLU
22	A	550	LEU
22	A	552	LEU
22	A	554	LEU
22	A	560	LEU
22	A	562	LYS
22	A	563	GLU
22	A	565	PHE
22	A	566	GLN
22	A	575	GLU
22	A	579	LEU
22	A	580	GLN
23	A	13	LEU
23	A	14	ILE
23	A	40	VAL
23	A	83	VAL

Model ID	Chain	Residue ID	Residue type
23	A	127	VAL
23	A	129	ASN
23	A	134	ILE
23	A	137	GLN
23	A	189	LEU
23	A	190	GLU
23	A	203	THR
23	A	208	LEU
23	A	224	LEU
23	A	251	GLU
23	A	299	THR
23	A	334	HIS
23	A	339	MET
23	A	379	LEU
23	A	400	GLN
23	A	410	LEU
23	A	411	LEU
23	A	418	LEU
23	A	435	LEU
23	A	441	GLN
23	A	443	LEU
23	A	471	MET
23	A	554	LEU

Model ID	Chain	Residue ID	Residue type
23	A	573	LYS
23	A	579	LEU
24	A	6	HIS
24	A	13	LEU
24	A	31	LEU
24	A	40	VAL
24	A	41	VAL
24	A	44	VAL
24	A	48	ARG
24	A	53	TYR
24	A	56	ASN
24	A	61	LYS
24	A	63	LYS
24	A	75	THR
24	A	82	CYS
24	A	83	VAL
24	A	87	LYS
24	A	92	ILE
24	A	93	LEU
24	A	104	VAL
24	A	114	TRP
24	A	115	ILE
24	A	118	LEU

Model ID	Chain	Residue ID	Residue type
24	A	121	LEU
24	A	122	LEU
24	A	134	ILE
24	A	136	GLN
24	A	143	TYR
24	A	145	VAL
24	A	155	LYS
24	A	162	GLU
24	A	165	VAL
24	A	167	ASP
24	A	175	PHE
24	A	179	VAL
24	A	189	LEU
24	A	202	LEU
24	A	204	TYR
24	A	220	ASN
24	A	229	PHE
24	A	246	LYS
24	A	247	LEU
24	A	251	GLU
24	A	257	GLU
24	A	258	LEU
24	A	274	PHE

Model ID	Chain	Residue ID	Residue type
24	A	278	LYS
24	A	292	ARG
24	A	293	LEU
24	A	298	LEU
24	A	309	LEU
24	A	316	VAL
24	A	317	LEU
24	A	319	LEU
24	A	323	GLU
24	A	330	LYS
24	A	338	GLN
24	A	344	GLN
24	A	348	GLU
24	A	350	LEU
24	A	356	LEU
24	A	365	ILE
24	A	366	GLU
24	A	381	GLN
24	A	383	GLU
24	A	388	LEU
24	A	389	GLU
24	A	391	LYS
24	A	392	ARG

Model ID	Chain	Residue ID	Residue type
24	A	399	ASN
24	A	400	GLN
24	A	401	GLU
24	A	415	PHE
24	A	434	ARG
24	A	435	LEU
24	A	438	GLN
24	A	448	TYR
24	A	453	LYS
24	A	460	ILE
24	A	462	GLN
24	A	465	LEU
24	A	475	ILE
24	A	482	LEU
24	A	485	LYS
24	A	491	VAL
24	A	494	VAL
24	A	497	GLU
24	A	518	GLU
24	A	524	TYR
24	A	526	GLU
24	A	529	LYS
24	A	531	LEU

Model ID	Chain	Residue ID	Residue type
24	A	539	ARG
24	A	540	VAL
24	A	542	LEU
24	A	545	GLU
24	A	546	GLN
24	A	548	ARG
24	A	552	LEU
24	A	554	LEU
24	A	557	GLN
24	A	565	PHE
24	A	567	LYS
24	A	569	SER
24	A	570	ARG
24	A	579	LEU
24	A	583	MET
25	A	39	VAL
25	A	61	LYS
25	A	76	LYS
25	A	87	LYS
25	A	92	ILE
25	A	131	ILE
25	A	136	GLN
25	A	148	LEU

Model ID	Chain	Residue ID	Residue type
25	A	171	PHE
25	A	180	TRP
25	A	189	LEU
25	A	202	LEU
25	A	224	LEU
25	A	247	LEU
25	A	253	LEU
25	A	299	THR
25	A	301	VAL
25	A	304	ILE
25	A	314	ASN
25	A	352	GLU
25	A	376	VAL
25	A	406	ARG
25	A	413	VAL
25	A	418	LEU
25	A	447	TYR
25	A	482	LEU
25	A	552	LEU
25	A	569	SER
25	A	579	LEU
26	A	40	VAL
26	A	41	VAL

Model ID	Chain	Residue ID	Residue type
26	A	46	LEU
26	A	67	LEU
26	A	93	LEU
26	A	94	VAL
26	A	121	LEU
26	A	122	LEU
26	A	129	ASN
26	A	139	MET
26	A	202	LEU
26	A	247	LEU
26	A	294	GLU
26	A	304	ILE
26	A	406	ARG
26	A	438	GLN
26	A	455	ILE
26	A	481	THR
26	A	482	LEU
26	A	483	THR
26	A	552	LEU
27	A	34	ILE
27	A	67	LEU
27	A	83	VAL
27	A	105	GLU

Model ID	Chain	Residue ID	Residue type
27	A	112	ASP
27	A	120	VAL
27	A	148	LEU
27	A	162	GLU
27	A	179	VAL
27	A	187	LEU
27	A	202	LEU
27	A	206	LEU
27	A	208	LEU
27	A	223	ARG
27	A	224	LEU
27	A	229	PHE
27	A	233	LYS
27	A	247	LEU
27	A	253	LEU
27	A	274	PHE
27	A	286	ILE
27	A	288	VAL
27	A	296	LEU
27	A	299	THR
27	A	323	GLU
27	A	356	LEU
27	A	362	ARG

Model ID	Chain	Residue ID	Residue type
27	A	408	SER
27	A	414	ILE
27	A	453	LYS
27	A	456	GLN
27	A	481	THR
27	A	490	GLU
27	A	491	VAL
27	A	556	GLU
27	A	560	LEU
27	A	569	SER
28	A	8	THR
28	A	21	LEU
28	A	72	GLN
28	A	76	LYS
28	A	86	PRO
28	A	101	LEU
28	A	121	LEU
28	A	125	THR
28	A	151	ARG
28	A	152	ILE
28	A	199	ASP
28	A	264	GLN
28	A	274	PHE

Model ID	Chain	Residue ID	Residue type
28	A	279	THR
28	A	293	LEU
28	A	343	VAL
28	A	354	LEU
28	A	361	GLU
28	A	369	ILE
28	A	373	PHE
28	A	406	ARG
28	A	450	GLU
28	A	506	LEU
28	A	508	GLU
28	A	533	GLU
28	A	552	LEU
29	A	1	MET
29	A	14	ILE
29	A	72	GLN
29	A	101	LEU
29	A	121	LEU
29	A	145	VAL
29	A	151	ARG
29	A	202	LEU
29	A	208	LEU
29	A	212	THR

Model ID	Chain	Residue ID	Residue type
29	A	218	THR
29	A	274	PHE
29	A	293	LEU
29	A	294	GLU
29	A	350	LEU
29	A	393	ASP
29	A	406	ARG
29	A	420	GLU
29	A	451	PRO
29	A	511	ARG
29	A	552	LEU
29	A	562	LYS
29	A	579	LEU
30	A	13	LEU
30	A	48	ARG
30	A	51	LYS
30	A	53	TYR
30	A	54	LEU
30	A	56	ASN
30	A	58	LEU
30	A	65	PHE
30	A	67	LEU
30	A	71	VAL

Model ID	Chain	Residue ID	Residue type
30	A	78	ILE
30	A	87	LYS
30	A	95	LEU
30	A	96	LEU
30	A	111	ASN
30	A	112	ASP
30	A	114	TRP
30	A	115	ILE
30	A	122	LEU
30	A	129	ASN
30	A	139	MET
30	A	140	ASP
30	A	143	TYR
30	A	145	VAL
30	A	155	LYS
30	A	159	ASP
30	A	160	GLU
30	A	171	PHE
30	A	174	PHE
30	A	180	TRP
30	A	183	ARG
30	A	187	LEU
30	A	189	LEU

Model ID	Chain	Residue ID	Residue type
30	A	206	LEU
30	A	207	LYS
30	A	208	LEU
30	A	214	GLN
30	A	216	ASP
30	A	220	ASN
30	A	223	ARG
30	A	229	PHE
30	A	233	LYS
30	A	237	VAL
30	A	244	ARG
30	A	249	GLN
30	A	258	LEU
30	A	265	GLN
30	A	274	PHE
30	A	287	GLN
30	A	288	VAL
30	A	292	ARG
30	A	293	LEU
30	A	316	VAL
30	A	323	GLU
30	A	329	GLN
30	A	330	LYS

Model ID	Chain	Residue ID	Residue type
30	A	342	LYS
30	A	350	LEU
30	A	354	LEU
30	A	356	LEU
30	A	357	HIS
30	A	362	ARG
30	A	371	SER
30	A	382	LYS
30	A	387	GLN
30	A	388	LEU
30	A	395	PHE
30	A	398	GLN
30	A	413	VAL
30	A	421	GLU
30	A	429	LYS
30	A	443	LEU
30	A	449	GLU
30	A	450	GLU
30	A	453	LYS
30	A	456	GLN
30	A	461	LEU
30	A	475	ILE
30	A	482	LEU

Model ID	Chain	Residue ID	Residue type
30	A	487	LYS
30	A	488	GLU
30	A	492	GLU
30	A	495	LYS
30	A	506	LEU
30	A	508	GLU
30	A	514	GLU
30	A	524	TYR
30	A	527	HIS
30	A	528	LEU
30	A	531	LEU
30	A	535	MET
30	A	536	GLU
30	A	541	GLN
30	A	543	LEU
30	A	547	GLU
30	A	548	ARG
30	A	550	LEU
30	A	554	LEU
30	A	556	GLU
30	A	557	GLN
30	A	558	GLU
30	A	560	LEU

Model ID	Chain	Residue ID	Residue type
30	A	579	LEU
31	A	4	GLU
31	A	14	ILE
31	A	40	VAL
31	A	41	VAL
31	A	56	ASN
31	A	67	LEU
31	A	83	VAL
31	A	114	TRP
31	A	143	TYR
31	A	172	VAL
31	A	179	VAL
31	A	182	LEU
31	A	189	LEU
31	A	206	LEU
31	A	223	ARG
31	A	227	ARG
31	A	237	VAL
31	A	242	VAL
31	A	252	LYS
31	A	253	LEU
31	A	282	LEU
31	A	304	ILE

Model ID	Chain	Residue ID	Residue type
31	A	312	MET
31	A	354	LEU
31	A	356	LEU
31	A	374	LYS
31	A	375	ASP
31	A	380	PHE
31	A	456	GLN
31	A	468	LYS
31	A	476	LEU
31	A	492	GLU
31	A	504	LYS
31	A	528	LEU
32	A	4	GLU
32	A	15	GLU
32	A	39	VAL
32	A	54	LEU
32	A	109	ASN
32	A	114	TRP
32	A	179	VAL
32	A	182	LEU
32	A	189	LEU
32	A	206	LEU
32	A	223	ARG

Model ID	Chain	Residue ID	Residue type
32	A	253	LEU
32	A	255	ASP
32	A	312	MET
32	A	316	VAL
32	A	377	ASP
32	A	411	LEU
32	A	418	LEU
32	A	470	SER
32	A	490	GLU
32	A	548	ARG
33	A	5	ILE
33	A	7	MET
33	A	58	LEU
33	A	131	ILE
33	A	162	GLU
33	A	174	PHE
33	A	180	TRP
33	A	196	LEU
33	A	202	LEU
33	A	209	LYS
33	A	242	VAL
33	A	268	ASP
33	A	292	ARG

Model ID	Chain	Residue ID	Residue type
33	A	296	LEU
33	A	317	LEU
33	A	322	ILE
33	A	324	ASN
33	A	363	GLU
33	A	379	LEU
33	A	384	LEU
33	A	399	ASN
33	A	413	VAL
33	A	422	VAL
33	A	459	GLU
33	A	489	ILE
33	A	517	MET
33	A	527	HIS
33	A	545	GLU
33	A	546	GLN
33	A	548	ARG
33	A	573	LYS
34	A	18	ASN
34	A	41	VAL
34	A	48	ARG
34	A	95	LEU
34	A	109	ASN

Model ID	Chain	Residue ID	Residue type
34	A	121	LEU
34	A	127	VAL
34	A	189	LEU
34	A	208	LEU
34	A	256	GLU
34	A	282	LEU
34	A	292	ARG
34	A	317	LEU
34	A	356	LEU
34	A	375	ASP
34	A	384	LEU
34	A	400	GLN
34	A	460	ILE
34	A	537	ASN
34	A	566	GLN
34	A	576	ILE
35	A	37	PRO
35	A	62	LYS
35	A	80	MET
35	A	95	LEU
35	A	122	LEU
35	A	139	MET
35	A	189	LEU

Model ID	Chain	Residue ID	Residue type
35	A	195	PRO
35	A	201	TYR
35	A	216	ASP
35	A	224	LEU
35	A	227	ARG
35	A	229	PHE
35	A	292	ARG
35	A	324	ASN
35	A	345	LEU
35	A	361	GLU
35	A	381	GLN
35	A	411	LEU
35	A	430	PRO
35	A	443	LEU
35	A	460	ILE
35	A	517	MET
35	A	522	ARG
35	A	528	LEU
35	A	557	GLN
35	A	560	LEU
36	A	32	SER
36	A	41	VAL
36	A	75	THR

Model ID	Chain	Residue ID	Residue type
36	A	92	ILE
36	A	93	LEU
36	A	109	ASN
36	A	127	VAL
36	A	136	GLN
36	A	162	GLU
36	A	174	PHE
36	A	175	PHE
36	A	202	LEU
36	A	223	ARG
36	A	233	LYS
36	A	304	ILE
36	A	376	VAL
36	A	434	ARG
36	A	453	LYS
36	A	458	GLU
36	A	475	ILE
36	A	482	LEU
36	A	528	LEU
36	A	576	ILE
36	A	578	ASP
37	A	41	VAL
37	A	80	MET

Model ID	Chain	Residue ID	Residue type
37	A	112	ASP
37	A	121	LEU
37	A	127	VAL
37	A	202	LEU
37	A	223	ARG
37	A	224	LEU
37	A	233	LYS
37	A	253	LEU
37	A	293	LEU
37	A	294	GLU
37	A	304	ILE
37	A	361	GLU
37	A	376	VAL
37	A	417	PRO
37	A	427	TYR
37	A	453	LYS
37	A	482	LEU
37	A	484	GLU
37	A	565	PHE
38	A	36	GLN
38	A	40	VAL
38	A	48	ARG
38	A	92	ILE

Model ID	Chain	Residue ID	Residue type
38	A	95	LEU
38	A	112	ASP
38	A	114	TRP
38	A	144	TYR
38	A	146	THR
38	A	161	ASN
38	A	189	LEU
38	A	222	PRO
38	A	229	PHE
38	A	282	LEU
38	A	292	ARG
38	A	299	THR
38	A	317	LEU
38	A	375	ASP
38	A	379	LEU
38	A	384	LEU
38	A	413	VAL
38	A	443	LEU
38	A	468	LYS
38	A	471	MET
38	A	477	GLN
38	A	547	GLU
38	A	573	LYS

Model ID	Chain	Residue ID	Residue type
39	A	4	GLU
39	A	11	MET
39	A	25	PRO
39	A	48	ARG
39	A	67	LEU
39	A	80	MET
39	A	83	VAL
39	A	95	LEU
39	A	120	VAL
39	A	124	SER
39	A	127	VAL
39	A	165	VAL
39	A	189	LEU
39	A	208	LEU
39	A	221	LEU
39	A	229	PHE
39	A	261	GLU
39	A	292	ARG
39	A	317	LEU
39	A	321	GLN
39	A	379	LEU
39	A	384	LEU
39	A	417	PRO

Model ID	Chain	Residue ID	Residue type
39	A	430	PRO
39	A	468	LYS
39	A	528	LEU
40	A	14	ILE
40	A	39	VAL
40	A	56	ASN
40	A	67	LEU
40	A	122	LEU
40	A	134	ILE
40	A	170	ASP
40	A	183	ARG
40	A	189	LEU
40	A	223	ARG
40	A	229	PHE
40	A	239	ASP
40	A	263	VAL
40	A	265	GLN
40	A	274	PHE
40	A	282	LEU
40	A	292	ARG
40	A	316	VAL
40	A	322	ILE
40	A	328	VAL

Model ID	Chain	Residue ID	Residue type
40	A	345	LEU
40	A	350	LEU
40	A	359	ASP
40	A	367	VAL
40	A	379	LEU
40	A	384	LEU
40	A	415	PHE
40	A	441	GLN
40	A	444	LYS
40	A	521	GLU
40	A	531	LEU
40	A	537	ASN
41	A	4	GLU
41	A	7	MET
41	A	13	LEU
41	A	14	ILE
41	A	20	ARG
41	A	34	ILE
41	A	38	MET
41	A	40	VAL
41	A	41	VAL
41	A	44	VAL
41	A	46	LEU

Model ID	Chain	Residue ID	Residue type
41	A	54	LEU
41	A	56	ASN
41	A	62	LYS
41	A	71	VAL
41	A	78	ILE
41	A	92	ILE
41	A	96	LEU
41	A	114	TRP
41	A	115	ILE
41	A	121	LEU
41	A	127	VAL
41	A	141	GLN
41	A	143	TYR
41	A	147	GLU
41	A	151	ARG
41	A	155	LYS
41	A	171	PHE
41	A	175	PHE
41	A	176	PRO
41	A	180	TRP
41	A	187	LEU
41	A	189	LEU
41	A	200	GLU

Model ID	Chain	Residue ID	Residue type
41	A	214	GLN
41	A	215	LYS
41	A	216	ASP
41	A	228	LYS
41	A	229	PHE
41	A	232	LYS
41	A	233	LYS
41	A	237	VAL
41	A	252	LYS
41	A	265	GLN
41	A	274	PHE
41	A	288	VAL
41	A	298	LEU
41	A	299	THR
41	A	312	MET
41	A	316	VAL
41	A	317	LEU
41	A	323	GLU
41	A	336	GLU
41	A	339	MET
41	A	346	PRO
41	A	356	LEU
41	A	362	ARG

Model ID	Chain	Residue ID	Residue type
41	A	365	ILE
41	A	366	GLU
41	A	367	VAL
41	A	373	PHE
41	A	375	ASP
41	A	381	GLN
41	A	391	LYS
41	A	398	GLN
41	A	427	TYR
41	A	434	ARG
41	A	435	LEU
41	A	439	LYS
41	A	443	LEU
41	A	450	GLU
41	A	453	LYS
41	A	461	LEU
41	A	465	LEU
41	A	487	LYS
41	A	494	VAL
41	A	506	LEU
41	A	510	GLN
41	A	528	LEU
41	A	534	LYS

Model ID	Chain	Residue ID	Residue type
41	A	543	LEU
41	A	547	GLU
41	A	548	ARG
41	A	550	LEU
41	A	554	LEU
41	A	561	LEU
41	A	566	GLN
41	A	569	SER
41	A	579	LEU
41	A	580	GLN
42	A	1	MET
42	A	13	LEU
42	A	28	LEU
42	A	36	GLN
42	A	39	VAL
42	A	95	LEU
42	A	101	LEU
42	A	120	VAL
42	A	163	ASN
42	A	184	ASP
42	A	258	LEU
42	A	280	LYS
42	A	316	VAL

Model ID	Chain	Residue ID	Residue type
42	A	354	LEU
42	A	390	LYS
42	A	399	ASN
42	A	415	PHE
42	A	422	VAL
42	A	443	LEU
42	A	452	ARG
42	A	475	ILE
42	A	478	THR
42	A	531	LEU
43	A	5	ILE
43	A	28	LEU
43	A	35	THR
43	A	48	ARG
43	A	74	HIS
43	A	95	LEU
43	A	122	LEU
43	A	127	VAL
43	A	134	ILE
43	A	141	GLN
43	A	155	LYS
43	A	189	LEU
43	A	208	LEU

Model ID	Chain	Residue ID	Residue type
43	A	223	ARG
43	A	229	PHE
43	A	255	ASP
43	A	265	GLN
43	A	266	VAL
43	A	270	CYS
43	A	282	LEU
43	A	283	SER
43	A	293	LEU
43	A	304	ILE
43	A	345	LEU
43	A	350	LEU
43	A	356	LEU
43	A	367	VAL
43	A	379	LEU
43	A	392	ARG
43	A	406	ARG
43	A	414	ILE
43	A	462	GLN
43	A	471	MET
43	A	521	GLU
43	A	528	LEU
43	A	530	GLN

Model ID	Chain	Residue ID	Residue type
43	A	531	LEU
43	A	533	GLU
43	A	539	ARG
44	A	5	ILE
44	A	13	LEU
44	A	20	ARG
44	A	39	VAL
44	A	40	VAL
44	A	41	VAL
44	A	44	VAL
44	A	51	LYS
44	A	54	LEU
44	A	55	MET
44	A	56	ASN
44	A	61	LYS
44	A	62	LYS
44	A	63	LYS
44	A	67	LEU
44	A	74	HIS
44	A	78	ILE
44	A	93	LEU
44	A	98	THR
44	A	101	LEU

Model ID	Chain	Residue ID	Residue type
44	A	114	TRP
44	A	122	LEU
44	A	127	VAL
44	A	131	ILE
44	A	141	GLN
44	A	143	TYR
44	A	145	VAL
44	A	150	HIS
44	A	151	ARG
44	A	155	LYS
44	A	161	ASN
44	A	165	VAL
44	A	170	ASP
44	A	171	PHE
44	A	175	PHE
44	A	183	ARG
44	A	187	LEU
44	A	189	LEU
44	A	207	LYS
44	A	210	LYS
44	A	218	THR
44	A	220	ASN
44	A	223	ARG

Model ID	Chain	Residue ID	Residue type
44	A	231	PRO
44	A	244	ARG
44	A	247	LEU
44	A	249	GLN
44	A	252	LYS
44	A	261	GLU
44	A	265	GLN
44	A	274	PHE
44	A	294	GLU
44	A	298	LEU
44	A	302	ASN
44	A	317	LEU
44	A	329	GLN
44	A	334	HIS
44	A	335	TYR
44	A	350	LEU
44	A	355	ASP
44	A	357	HIS
44	A	361	GLU
44	A	363	GLU
44	A	367	VAL
44	A	374	LYS
44	A	382	LYS

Model ID	Chain	Residue ID	Residue type
44	A	384	LEU
44	A	387	GLN
44	A	401	GLU
44	A	406	ARG
44	A	427	TYR
44	A	429	LYS
44	A	434	ARG
44	A	440	LEU
44	A	452	ARG
44	A	453	LYS
44	A	458	GLU
44	A	465	LEU
44	A	466	LYS
44	A	476	LEU
44	A	482	LEU
44	A	484	GLU
44	A	487	LYS
44	A	495	LYS
44	A	511	ARG
44	A	522	ARG
44	A	528	LEU
44	A	531	LEU
44	A	543	LEU

Model ID	Chain	Residue ID	Residue type
44	A	553	LYS
44	A	554	LEU
44	A	557	GLN
44	A	560	LEU
44	A	561	LEU
44	A	562	LYS
44	A	565	PHE
44	A	566	GLN
44	A	569	SER
44	A	579	LEU
44	A	581	THR
45	A	3	SER
45	A	30	ILE
45	A	40	VAL
45	A	41	VAL
45	A	67	LEU
45	A	72	GLN
45	A	114	TRP
45	A	127	VAL
45	A	160	GLU
45	A	177	ASP
45	A	224	LEU
45	A	229	PHE

Model ID	Chain	Residue ID	Residue type
45	A	292	ARG
45	A	297	VAL
45	A	435	LEU
45	A	440	LEU
45	A	527	HIS
45	A	552	LEU
45	A	568	GLU
46	A	40	VAL
46	A	53	TYR
46	A	71	VAL
46	A	92	ILE
46	A	101	LEU
46	A	120	VAL
46	A	129	ASN
46	A	134	ILE
46	A	152	ILE
46	A	159	ASP
46	A	161	ASN
46	A	163	ASN
46	A	202	LEU
46	A	226	ILE
46	A	247	LEU
46	A	292	ARG

Model ID	Chain	Residue ID	Residue type
46	A	294	GLU
46	A	316	VAL
46	A	322	ILE
46	A	346	PRO
46	A	355	ASP
46	A	368	PHE
46	A	380	PHE
46	A	384	LEU
46	A	403	SER
46	A	414	ILE
46	A	429	LYS
46	A	437	VAL
46	A	453	LYS
46	A	456	GLN
46	A	479	ASP
46	A	493	ARG
46	A	494	VAL
46	A	512	LYS
46	A	515	GLN
46	A	531	LEU
46	A	542	LEU
46	A	550	LEU
46	A	582	LYS

Model ID	Chain	Residue ID	Residue type
46	A	583	MET
47	A	4	GLU
47	A	13	LEU
47	A	39	VAL
47	A	51	LYS
47	A	72	GLN
47	A	78	ILE
47	A	93	LEU
47	A	101	LEU
47	A	145	VAL
47	A	148	LEU
47	A	223	ARG
47	A	224	LEU
47	A	233	LYS
47	A	266	VAL
47	A	292	ARG
47	A	294	GLU
47	A	384	LEU
47	A	391	LYS
47	A	445	LYS
47	A	447	TYR
47	A	453	LYS
47	A	458	GLU

Model ID	Chain	Residue ID	Residue type
47	A	492	GLU
47	A	544	LYS
47	A	556	GLU
47	A	563	GLU
47	A	566	GLN
48	A	92	ILE
48	A	93	LEU
48	A	202	LEU
48	A	223	ARG
48	A	224	LEU
48	A	233	LYS
48	A	265	GLN
48	A	294	GLU
48	A	375	ASP
48	A	422	VAL
48	A	427	TYR
48	A	433	TYR
48	A	444	LYS
48	A	453	LYS
48	A	465	LEU
48	A	482	LEU
48	A	500	GLN
48	A	561	LEU

Model ID	Chain	Residue ID	Residue type
49	A	98	THR
49	A	115	ILE
49	A	127	VAL
49	A	166	GLU
49	A	180	TRP
49	A	189	LEU
49	A	206	LEU
49	A	240	ARG
49	A	255	ASP
49	A	328	VAL
49	A	335	TYR
49	A	348	GLU
49	A	350	LEU
49	A	354	LEU
49	A	422	VAL
49	A	440	LEU
49	A	482	LEU
49	A	506	LEU
49	A	560	LEU
50	A	6	HIS
50	A	10	PRO
50	A	13	LEU
50	A	16	ASN

Model ID	Chain	Residue ID	Residue type
50	A	28	LEU
50	A	34	ILE
50	A	39	VAL
50	A	40	VAL
50	A	46	LEU
50	A	47	TYR
50	A	48	ARG
50	A	54	LEU
50	A	55	MET
50	A	61	LYS
50	A	67	LEU
50	A	75	THR
50	A	76	LYS
50	A	78	ILE
50	A	80	MET
50	A	82	CYS
50	A	88	LYS
50	A	93	LEU
50	A	94	VAL
50	A	95	LEU
50	A	96	LEU
50	A	101	LEU
50	A	109	ASN

Model ID	Chain	Residue ID	Residue type
50	A	114	TRP
50	A	120	VAL
50	A	121	LEU
50	A	145	VAL
50	A	151	ARG
50	A	161	ASN
50	A	174	PHE
50	A	182	LEU
50	A	183	ARG
50	A	201	TYR
50	A	202	LEU
50	A	208	LEU
50	A	216	ASP
50	A	223	ARG
50	A	227	ARG
50	A	228	LYS
50	A	230	PHE
50	A	233	LYS
50	A	245	ARG
50	A	247	LEU
50	A	265	GLN
50	A	274	PHE
50	A	288	VAL

Model ID	Chain	Residue ID	Residue type
50	A	292	ARG
50	A	294	GLU
50	A	298	LEU
50	A	309	LEU
50	A	312	MET
50	A	317	LEU
50	A	322	ILE
50	A	351	GLN
50	A	352	GLU
50	A	356	LEU
50	A	357	HIS
50	A	367	VAL
50	A	374	LYS
50	A	381	GLN
50	A	384	LEU
50	A	390	LYS
50	A	397	LYS
50	A	418	LEU
50	A	423	LYS
50	A	427	TYR
50	A	437	VAL
50	A	443	LEU
50	A	447	TYR

Model ID	Chain	Residue ID	Residue type
50	A	453	LYS
50	A	458	GLU
50	A	465	LEU
50	A	473	ASP
50	A	476	LEU
50	A	477	GLN
50	A	490	GLU
50	A	492	GLU
50	A	500	GLN
50	A	506	LEU
50	A	512	LYS
50	A	525	GLN
50	A	529	LYS
50	A	531	LEU
50	A	541	GLN
50	A	542	LEU
50	A	543	LEU
50	A	545	GLU
50	A	552	LEU
50	A	560	LEU
50	A	563	GLU
50	A	565	PHE
50	A	578	ASP

Model ID	Chain	Residue ID	Residue type
51	A	11	MET
51	A	29	LYS
51	A	39	VAL
51	A	110	GLN
51	A	127	VAL
51	A	131	ILE
51	A	164	GLU
51	A	189	LEU
51	A	199	ASP
51	A	208	LEU
51	A	249	GLN
51	A	272	TYR
51	A	292	ARG
51	A	297	VAL
51	A	357	HIS
51	A	384	LEU
51	A	443	LEU
51	A	481	THR
51	A	491	VAL
51	A	531	LEU
51	A	542	LEU
51	A	552	LEU
51	A	560	LEU

Model ID	Chain	Residue ID	Residue type
52	A	4	GLU
52	A	8	THR
52	A	25	PRO
52	A	30	ILE
52	A	41	VAL
52	A	43	ILE
52	A	55	MET
52	A	67	LEU
52	A	86	PRO
52	A	93	LEU
52	A	94	VAL
52	A	122	LEU
52	A	146	THR
52	A	149	THR
52	A	178	PHE
52	A	202	LEU
52	A	223	ARG
52	A	224	LEU
52	A	231	PRO
52	A	233	LYS
52	A	238	PHE
52	A	294	GLU
52	A	301	VAL

Model ID	Chain	Residue ID	Residue type
52	A	328	VAL
52	A	380	PHE
52	A	427	TYR
52	A	453	LYS
52	A	458	GLU
52	A	482	LEU
52	A	519	GLN
52	A	546	GLN
53	A	3	SER
53	A	5	ILE
53	A	7	MET
53	A	10	PRO
53	A	11	MET
53	A	12	CYS
53	A	13	LEU
53	A	14	ILE
53	A	28	LEU
53	A	29	LYS
53	A	37	PRO
53	A	40	VAL
53	A	44	VAL
53	A	61	LYS
53	A	74	HIS

Model ID	Chain	Residue ID	Residue type
53	A	78	ILE
53	A	83	VAL
53	A	99	GLU
53	A	106	LYS
53	A	114	TRP
53	A	118	LEU
53	A	122	LEU
53	A	127	VAL
53	A	129	ASN
53	A	134	ILE
53	A	137	GLN
53	A	141	GLN
53	A	151	ARG
53	A	155	LYS
53	A	165	VAL
53	A	166	GLU
53	A	171	PHE
53	A	172	VAL
53	A	175	PHE
53	A	183	ARG
53	A	187	LEU
53	A	189	LEU
53	A	190	GLU

Model ID	Chain	Residue ID	Residue type
53	A	202	LEU
53	A	204	TYR
53	A	208	LEU
53	A	210	LYS
53	A	220	ASN
53	A	221	LEU
53	A	223	ARG
53	A	224	LEU
53	A	226	ILE
53	A	229	PHE
53	A	247	LEU
53	A	251	GLU
53	A	253	LEU
53	A	264	GLN
53	A	277	SER
53	A	287	GLN
53	A	288	VAL
53	A	292	ARG
53	A	293	LEU
53	A	298	LEU
53	A	309	LEU
53	A	317	LEU
53	A	329	GLN

Model ID	Chain	Residue ID	Residue type
53	A	335	TYR
53	A	344	GLN
53	A	348	GLU
53	A	354	LEU
53	A	357	HIS
53	A	367	VAL
53	A	370	ARG
53	A	374	LYS
53	A	377	ASP
53	A	379	LEU
53	A	387	GLN
53	A	395	PHE
53	A	398	GLN
53	A	413	VAL
53	A	422	VAL
53	A	426	ILE
53	A	434	ARG
53	A	437	VAL
53	A	439	LYS
53	A	440	LEU
53	A	443	LEU
53	A	452	ARG
53	A	453	LYS

Model ID	Chain	Residue ID	Residue type
53	A	456	GLN
53	A	461	LEU
53	A	482	LEU
53	A	485	LYS
53	A	494	VAL
53	A	504	LYS
53	A	506	LEU
53	A	511	ARG
53	A	519	GLN
53	A	521	GLU
53	A	528	LEU
53	A	529	LYS
53	A	531	LEU
53	A	534	LYS
53	A	537	ASN
53	A	542	LEU
53	A	543	LEU
53	A	560	LEU
53	A	561	LEU
53	A	565	PHE
53	A	582	LYS
54	A	7	MET
54	A	13	LEU

Model ID	Chain	Residue ID	Residue type
54	A	14	ILE
54	A	28	LEU
54	A	31	LEU
54	A	40	VAL
54	A	41	VAL
54	A	44	VAL
54	A	46	LEU
54	A	51	LYS
54	A	53	TYR
54	A	54	LEU
54	A	55	MET
54	A	58	LEU
54	A	61	LYS
54	A	63	LYS
54	A	72	GLN
54	A	78	ILE
54	A	80	MET
54	A	87	LYS
54	A	91	HIS
54	A	93	LEU
54	A	96	LEU
54	A	104	VAL
54	A	112	ASP

Model ID	Chain	Residue ID	Residue type
54	A	114	TRP
54	A	115	ILE
54	A	120	VAL
54	A	121	LEU
54	A	125	THR
54	A	127	VAL
54	A	128	TYR
54	A	135	ASN
54	A	147	GLU
54	A	165	VAL
54	A	172	VAL
54	A	175	PHE
54	A	183	ARG
54	A	187	LEU
54	A	210	LYS
54	A	217	GLU
54	A	220	ASN
54	A	221	LEU
54	A	223	ARG
54	A	229	PHE
54	A	232	LYS
54	A	234	LYS
54	A	237	VAL

Model ID	Chain	Residue ID	Residue type
54	A	243	HIS
54	A	249	GLN
54	A	253	LEU
54	A	257	GLU
54	A	261	GLU
54	A	265	GLN
54	A	273	ILE
54	A	274	PHE
54	A	281	THR
54	A	282	LEU
54	A	286	ILE
54	A	292	ARG
54	A	293	LEU
54	A	312	MET
54	A	317	LEU
54	A	319	LEU
54	A	330	LYS
54	A	332	ILE
54	A	335	TYR
54	A	339	MET
54	A	342	LYS
54	A	345	LEU
54	A	346	PRO

Model ID	Chain	Residue ID	Residue type
54	A	350	LEU
54	A	351	GLN
54	A	352	GLU
54	A	356	LEU
54	A	361	GLU
54	A	383	GLU
54	A	384	LEU
54	A	395	PHE
54	A	400	GLN
54	A	406	ARG
54	A	412	GLN
54	A	418	LEU
54	A	437	VAL
54	A	440	LEU
54	A	443	LEU
54	A	450	GLU
54	A	453	LYS
54	A	465	LEU
54	A	472	THR
54	A	475	ILE
54	A	476	LEU
54	A	485	LYS
54	A	497	GLU

Model ID	Chain	Residue ID	Residue type
54	A	507	HIS
54	A	509	MET
54	A	514	GLU
54	A	525	GLN
54	A	527	HIS
54	A	528	LEU
54	A	531	LEU
54	A	534	LYS
54	A	535	MET
54	A	542	LEU
54	A	543	LEU
54	A	559	GLN
54	A	566	GLN
54	A	567	LYS
54	A	571	ILE
54	A	573	LYS
54	A	579	LEU
55	A	13	LEU
55	A	14	ILE
55	A	18	ASN
55	A	30	ILE
55	A	34	ILE
55	A	36	GLN

Model ID	Chain	Residue ID	Residue type
55	A	39	VAL
55	A	40	VAL
55	A	41	VAL
55	A	49	THR
55	A	54	LEU
55	A	61	LYS
55	A	65	PHE
55	A	78	ILE
55	A	80	MET
55	A	88	LYS
55	A	109	ASN
55	A	111	ASN
55	A	112	ASP
55	A	114	TRP
55	A	115	ILE
55	A	116	PHE
55	A	120	VAL
55	A	121	LEU
55	A	129	ASN
55	A	134	ILE
55	A	137	GLN
55	A	145	VAL
55	A	151	ARG

Model ID	Chain	Residue ID	Residue type
55	A	154	SER
55	A	155	LYS
55	A	165	VAL
55	A	174	PHE
55	A	175	PHE
55	A	181	THR
55	A	182	LEU
55	A	201	TYR
55	A	202	LEU
55	A	210	LYS
55	A	220	ASN
55	A	227	ARG
55	A	228	LYS
55	A	233	LYS
55	A	247	LEU
55	A	254	GLN
55	A	265	GLN
55	A	273	ILE
55	A	274	PHE
55	A	277	SER
55	A	292	ARG
55	A	293	LEU
55	A	309	LEU

Model ID	Chain	Residue ID	Residue type
55	A	317	LEU
55	A	348	GLU
55	A	354	LEU
55	A	355	ASP
55	A	356	LEU
55	A	357	HIS
55	A	359	ASP
55	A	361	GLU
55	A	369	ILE
55	A	395	PHE
55	A	414	ILE
55	A	435	LEU
55	A	438	GLN
55	A	451	PRO
55	A	452	ARG
55	A	453	LYS
55	A	455	ILE
55	A	476	LEU
55	A	494	VAL
55	A	500	GLN
55	A	511	ARG
55	A	512	LYS
55	A	528	LEU

Model ID	Chain	Residue ID	Residue type
55	A	529	LYS
55	A	531	LEU
55	A	542	LEU
55	A	550	LEU
55	A	552	LEU
55	A	555	GLN
55	A	560	LEU
55	A	561	LEU
55	A	563	GLU
55	A	565	PHE
55	A	580	GLN
56	A	5	ILE
56	A	14	ILE
56	A	20	ARG
56	A	28	LEU
56	A	39	VAL
56	A	40	VAL
56	A	51	LYS
56	A	53	TYR
56	A	56	ASN
56	A	58	LEU
56	A	62	LYS
56	A	67	LEU

Model ID	Chain	Residue ID	Residue type
56	A	76	LYS
56	A	78	ILE
56	A	80	MET
56	A	81	TRP
56	A	87	LYS
56	A	92	ILE
56	A	99	GLU
56	A	114	TRP
56	A	121	LEU
56	A	127	VAL
56	A	129	ASN
56	A	134	ILE
56	A	143	TYR
56	A	145	VAL
56	A	151	ARG
56	A	157	SER
56	A	162	GLU
56	A	168	SER
56	A	175	PHE
56	A	180	TRP
56	A	181	THR
56	A	201	TYR
56	A	208	LEU

Model ID	Chain	Residue ID	Residue type
56	A	215	LYS
56	A	218	THR
56	A	224	LEU
56	A	226	ILE
56	A	227	ARG
56	A	229	PHE
56	A	230	PHE
56	A	233	LYS
56	A	244	ARG
56	A	252	LYS
56	A	253	LEU
56	A	263	VAL
56	A	265	GLN
56	A	274	PHE
56	A	278	LYS
56	A	282	LEU
56	A	283	SER
56	A	292	ARG
56	A	294	GLU
56	A	296	LEU
56	A	317	LEU
56	A	319	LEU
56	A	330	LYS

Model ID	Chain	Residue ID	Residue type
56	A	334	HIS
56	A	350	LEU
56	A	352	GLU
56	A	353	LEU
56	A	357	HIS
56	A	361	GLU
56	A	362	ARG
56	A	367	VAL
56	A	384	LEU
56	A	388	LEU
56	A	391	LYS
56	A	397	LYS
56	A	405	ASP
56	A	410	LEU
56	A	414	ILE
56	A	423	LYS
56	A	426	ILE
56	A	427	TYR
56	A	429	LYS
56	A	437	VAL
56	A	439	LYS
56	A	443	LEU
56	A	447	TYR

Model ID	Chain	Residue ID	Residue type
56	A	453	LYS
56	A	459	GLU
56	A	461	LEU
56	A	479	ASP
56	A	483	THR
56	A	495	LYS
56	A	506	LEU
56	A	512	LYS
56	A	515	GLN
56	A	528	LEU
56	A	533	GLU
56	A	534	LYS
56	A	536	GLU
56	A	540	VAL
56	A	543	LEU
56	A	545	GLU
56	A	550	LEU
56	A	552	LEU
56	A	554	LEU
56	A	558	GLU
56	A	561	LEU
56	A	565	PHE
56	A	573	LYS

Model ID	Chain	Residue ID	Residue type
56	A	576	ILE
56	A	579	LEU
56	A	582	LYS
56	A	583	MET
57	A	40	VAL
57	A	46	LEU
57	A	52	SER
57	A	121	LEU
57	A	127	VAL
57	A	133	THR
57	A	182	LEU
57	A	189	LEU
57	A	214	GLN
57	A	233	LYS
57	A	242	VAL
57	A	297	VAL
57	A	304	ILE
57	A	309	LEU
57	A	391	LYS
57	A	413	VAL
57	A	421	GLU
57	A	478	THR
57	A	500	GLN

Model ID	Chain	Residue ID	Residue type
57	A	560	LEU
57	A	576	ILE
57	A	583	MET
58	A	11	MET
58	A	26	GLU
58	A	141	GLN
58	A	165	VAL
58	A	174	PHE
58	A	196	LEU
58	A	199	ASP
58	A	207	LYS
58	A	223	ARG
58	A	224	LEU
58	A	353	LEU
58	A	375	ASP
58	A	398	GLN
58	A	430	PRO
58	A	435	LEU
58	A	452	ARG
58	A	468	LYS
58	A	477	GLN
59	A	14	ILE
59	A	94	VAL

Model ID	Chain	Residue ID	Residue type
59	A	101	LEU
59	A	151	ARG
59	A	152	ILE
59	A	190	GLU
59	A	202	LEU
59	A	224	LEU
59	A	233	LYS
59	A	253	LEU
59	A	254	GLN
59	A	265	GLN
59	A	295	SER
59	A	297	VAL
59	A	354	LEU
59	A	366	GLU
59	A	405	ASP
59	A	406	ARG
59	A	416	SER
59	A	418	LEU
59	A	469	GLU
59	A	471	MET
59	A	473	ASP
59	A	482	LEU
59	A	493	ARG

Model ID	Chain	Residue ID	Residue type
59	A	528	LEU
59	A	531	LEU
59	A	535	MET
60	A	4	GLU
60	A	6	HIS
60	A	39	VAL
60	A	40	VAL
60	A	48	ARG
60	A	53	TYR
60	A	58	LEU
60	A	61	LYS
60	A	87	LYS
60	A	104	VAL
60	A	131	ILE
60	A	150	HIS
60	A	170	ASP
60	A	202	LEU
60	A	216	ASP
60	A	223	ARG
60	A	226	ILE
60	A	229	PHE
60	A	238	PHE
60	A	261	GLU

Model ID	Chain	Residue ID	Residue type
60	A	266	VAL
60	A	278	LYS
60	A	294	GLU
60	A	295	SER
60	A	296	LEU
60	A	304	ILE
60	A	324	ASN
60	A	379	LEU
60	A	399	ASN
60	A	414	ILE
60	A	429	LYS
60	A	435	LEU
60	A	441	GLN
60	A	478	THR
60	A	482	LEU
60	A	490	GLU
60	A	505	MET
60	A	513	ASN
60	A	522	ARG
60	A	536	GLU
60	A	553	LYS
61	A	29	LYS
61	A	39	VAL

Model ID	Chain	Residue ID	Residue type
61	A	40	VAL
61	A	53	TYR
61	A	62	LYS
61	A	67	LEU
61	A	111	ASN
61	A	121	LEU
61	A	122	LEU
61	A	123	SER
61	A	125	THR
61	A	131	ILE
61	A	141	GLN
61	A	164	GLU
61	A	165	VAL
61	A	174	PHE
61	A	180	TRP
61	A	201	TYR
61	A	220	ASN
61	A	223	ARG
61	A	224	LEU
61	A	226	ILE
61	A	229	PHE
61	A	242	VAL
61	A	265	GLN

Model ID	Chain	Residue ID	Residue type
61	A	266	VAL
61	A	317	LEU
61	A	319	LEU
61	A	330	LYS
61	A	350	LEU
61	A	358	ARG
61	A	363	GLU
61	A	375	ASP
61	A	379	LEU
61	A	405	ASP
61	A	435	LEU
61	A	450	GLU
61	A	468	LYS
61	A	478	THR
61	A	480	GLN
61	A	482	LEU
61	A	491	VAL
61	A	506	LEU
61	A	522	ARG
61	A	528	LEU
61	A	529	LYS
61	A	553	LYS
61	A	556	GLU

Model ID	Chain	Residue ID	Residue type
61	A	563	GLU
61	A	570	ARG
62	A	39	VAL
62	A	40	VAL
62	A	46	LEU
62	A	57	LYS
62	A	71	VAL
62	A	120	VAL
62	A	151	ARG
62	A	162	GLU
62	A	179	VAL
62	A	182	LEU
62	A	189	LEU
62	A	202	LEU
62	A	212	THR
62	A	237	VAL
62	A	252	LYS
62	A	281	THR
62	A	288	VAL
62	A	294	GLU
62	A	296	LEU
62	A	363	GLU
62	A	391	LYS

Model ID	Chain	Residue ID	Residue type
62	A	418	LEU
62	A	471	MET
62	A	482	LEU
62	A	504	LYS
62	A	531	LEU
62	A	543	LEU
63	A	40	VAL
63	A	44	VAL
63	A	46	LEU
63	A	67	LEU
63	A	101	LEU
63	A	112	ASP
63	A	122	LEU
63	A	152	ILE
63	A	163	ASN
63	A	226	ILE
63	A	233	LYS
63	A	247	LEU
63	A	258	LEU
63	A	266	VAL
63	A	274	PHE
63	A	292	ARG
63	A	293	LEU

Model ID	Chain	Residue ID	Residue type
63	A	304	ILE
63	A	322	ILE
63	A	375	ASP
63	A	387	GLN
63	A	393	ASP
63	A	406	ARG
63	A	408	SER
63	A	483	THR
63	A	489	ILE
64	A	41	VAL
64	A	53	TYR
64	A	56	ASN
64	A	79	TRP
64	A	122	LEU
64	A	163	ASN
64	A	205	SER
64	A	233	LYS
64	A	247	LEU
64	A	251	GLU
64	A	253	LEU
64	A	278	LYS
64	A	292	ARG
64	A	293	LEU

Model ID	Chain	Residue ID	Residue type
64	A	304	ILE
64	A	328	VAL
64	A	354	LEU
64	A	358	ARG
64	A	414	ILE
64	A	421	GLU
64	A	443	LEU
64	A	452	ARG
64	A	460	ILE
64	A	461	LEU
64	A	528	LEU
64	A	545	GLU
64	A	552	LEU
65	A	39	VAL
65	A	40	VAL
65	A	41	VAL
65	A	53	TYR
65	A	71	VAL
65	A	92	ILE
65	A	152	ILE
65	A	163	ASN
65	A	180	TRP
65	A	233	LYS

Model ID	Chain	Residue ID	Residue type
65	A	247	LEU
65	A	271	SER
65	A	278	LYS
65	A	286	ILE
65	A	292	ARG
65	A	293	LEU
65	A	294	GLU
65	A	306	SER
65	A	324	ASN
65	A	358	ARG
65	A	367	VAL
65	A	375	ASP
65	A	421	GLU
65	A	443	LEU
65	A	482	LEU
65	A	483	THR
65	A	545	GLU
65	A	560	LEU
65	A	581	THR
66	A	5	ILE
66	A	15	GLU
66	A	53	TYR
66	A	67	LEU

Model ID	Chain	Residue ID	Residue type
66	A	115	ILE
66	A	122	LEU
66	A	164	GLU
66	A	177	ASP
66	A	233	LYS
66	A	247	LEU
66	A	249	GLN
66	A	251	GLU
66	A	274	PHE
66	A	278	LYS
66	A	292	ARG
66	A	293	LEU
66	A	294	GLU
66	A	298	LEU
66	A	338	GLN
66	A	382	LYS
66	A	400	GLN
66	A	406	ARG
66	A	455	ILE
66	A	461	LEU
66	A	483	THR
66	A	484	GLU
67	A	5	ILE

Model ID	Chain	Residue ID	Residue type
67	A	6	HIS
67	A	13	LEU
67	A	28	LEU
67	A	34	ILE
67	A	44	VAL
67	A	55	MET
67	A	58	LEU
67	A	61	LYS
67	A	67	LEU
67	A	72	GLN
67	A	78	ILE
67	A	81	TRP
67	A	94	VAL
67	A	110	GLN
67	A	114	TRP
67	A	115	ILE
67	A	120	VAL
67	A	121	LEU
67	A	131	ILE
67	A	134	ILE
67	A	136	GLN
67	A	146	THR
67	A	148	LEU

Model ID	Chain	Residue ID	Residue type
67	A	162	GLU
67	A	175	PHE
67	A	177	ASP
67	A	180	TRP
67	A	182	LEU
67	A	187	LEU
67	A	189	LEU
67	A	223	ARG
67	A	228	LYS
67	A	233	LYS
67	A	234	LYS
67	A	237	VAL
67	A	252	LYS
67	A	258	LEU
67	A	265	GLN
67	A	273	ILE
67	A	277	SER
67	A	279	THR
67	A	286	ILE
67	A	288	VAL
67	A	292	ARG
67	A	294	GLU
67	A	298	LEU

Model ID	Chain	Residue ID	Residue type
67	A	309	LEU
67	A	319	LEU
67	A	321	GLN
67	A	337	GLN
67	A	344	GLN
67	A	349	SER
67	A	351	GLN
67	A	353	LEU
67	A	356	LEU
67	A	358	ARG
67	A	363	GLU
67	A	374	LYS
67	A	378	HIS
67	A	379	LEU
67	A	384	LEU
67	A	388	LEU
67	A	391	LYS
67	A	401	GLU
67	A	406	ARG
67	A	413	VAL
67	A	434	ARG
67	A	438	GLN
67	A	440	LEU

Model ID	Chain	Residue ID	Residue type
67	A	442	ASP
67	A	443	LEU
67	A	445	LYS
67	A	447	TYR
67	A	448	TYR
67	A	462	GLN
67	A	464	TYR
67	A	473	ASP
67	A	482	LEU
67	A	487	LYS
67	A	491	VAL
67	A	492	GLU
67	A	494	VAL
67	A	497	GLU
67	A	506	LEU
67	A	510	GLN
67	A	520	LYS
67	A	528	LEU
67	A	529	LYS
67	A	531	LEU
67	A	542	LEU
67	A	543	LEU
67	A	544	LYS

Model ID	Chain	Residue ID	Residue type
67	A	547	GLU
67	A	550	LEU
67	A	552	LEU
67	A	554	LEU
67	A	562	LYS
67	A	565	PHE
67	A	579	LEU
68	A	14	ILE
68	A	20	ARG
68	A	21	LEU
68	A	41	VAL
68	A	43	ILE
68	A	56	ASN
68	A	58	LEU
68	A	87	LYS
68	A	95	LEU
68	A	106	LYS
68	A	141	GLN
68	A	149	THR
68	A	151	ARG
68	A	160	GLU
68	A	163	ASN
68	A	164	GLU

Model ID	Chain	Residue ID	Residue type
68	A	166	GLU
68	A	185	PHE
68	A	187	LEU
68	A	196	LEU
68	A	223	ARG
68	A	233	LYS
68	A	236	PHE
68	A	242	VAL
68	A	253	LEU
68	A	273	ILE
68	A	274	PHE
68	A	278	LYS
68	A	282	LEU
68	A	292	ARG
68	A	317	LEU
68	A	354	LEU
68	A	374	LYS
68	A	418	LEU
68	A	435	LEU
68	A	448	TYR
68	A	450	GLU
68	A	453	LYS
68	A	461	LEU

Model ID	Chain	Residue ID	Residue type
68	A	471	MET
68	A	487	LYS
68	A	492	GLU
68	A	495	LYS
68	A	578	ASP
69	A	7	MET
69	A	13	LEU
69	A	15	GLU
69	A	21	LEU
69	A	39	VAL
69	A	40	VAL
69	A	54	LEU
69	A	67	LEU
69	A	75	THR
69	A	78	ILE
69	A	80	MET
69	A	99	GLU
69	A	104	VAL
69	A	111	ASN
69	A	113	SER
69	A	114	TRP
69	A	122	LEU
69	A	127	VAL

Model ID	Chain	Residue ID	Residue type
69	A	129	ASN
69	A	134	ILE
69	A	135	ASN
69	A	143	TYR
69	A	150	HIS
69	A	151	ARG
69	A	157	SER
69	A	159	ASP
69	A	172	VAL
69	A	177	ASP
69	A	182	LEU
69	A	187	LEU
69	A	190	GLU
69	A	194	GLN
69	A	201	TYR
69	A	204	TYR
69	A	206	LEU
69	A	214	GLN
69	A	219	PHE
69	A	220	ASN
69	A	223	ARG
69	A	226	ILE
69	A	227	ARG

Model ID	Chain	Residue ID	Residue type
69	A	229	PHE
69	A	232	LYS
69	A	240	ARG
69	A	243	HIS
69	A	247	LEU
69	A	251	GLU
69	A	254	GLN
69	A	257	GLU
69	A	265	GLN
69	A	283	SER
69	A	292	ARG
69	A	293	LEU
69	A	296	LEU
69	A	309	LEU
69	A	316	VAL
69	A	317	LEU
69	A	337	GLN
69	A	353	LEU
69	A	354	LEU
69	A	357	HIS
69	A	365	ILE
69	A	366	GLU
69	A	367	VAL

Model ID	Chain	Residue ID	Residue type
69	A	374	LYS
69	A	376	VAL
69	A	378	HIS
69	A	379	LEU
69	A	383	GLU
69	A	388	LEU
69	A	389	GLU
69	A	391	LYS
69	A	395	PHE
69	A	397	LYS
69	A	399	ASN
69	A	406	ARG
69	A	413	VAL
69	A	418	LEU
69	A	420	GLU
69	A	423	LYS
69	A	426	ILE
69	A	435	LEU
69	A	440	LEU
69	A	446	LYS
69	A	453	LYS
69	A	456	GLN
69	A	458	GLU

Model ID	Chain	Residue ID	Residue type
69	A	466	LYS
69	A	468	LYS
69	A	471	MET
69	A	475	ILE
69	A	480	GLN
69	A	482	LEU
69	A	484	GLU
69	A	485	LYS
69	A	487	LYS
69	A	492	GLU
69	A	507	HIS
69	A	519	GLN
69	A	529	LYS
69	A	530	GLN
69	A	531	LEU
69	A	543	LEU
69	A	544	LYS
69	A	550	LEU
69	A	552	LEU
69	A	561	LEU
69	A	565	PHE
69	A	573	LYS
69	A	575	GLU

Model ID	Chain	Residue ID	Residue type
69	A	579	LEU
69	A	580	GLN
69	A	581	THR
70	A	3	SER
70	A	7	MET
70	A	41	VAL
70	A	46	LEU
70	A	71	VAL
70	A	128	TYR
70	A	152	ILE
70	A	190	GLU
70	A	266	VAL
70	A	350	LEU
70	A	369	ILE
70	A	374	LYS
70	A	376	VAL
70	A	422	VAL
70	A	461	LEU
70	A	484	GLU
70	A	528	LEU
70	A	550	LEU
70	A	561	LEU
71	A	54	LEU

Model ID	Chain	Residue ID	Residue type
71	A	101	LEU
71	A	120	VAL
71	A	129	ASN
71	A	130	SER
71	A	189	LEU
71	A	208	LEU
71	A	263	VAL
71	A	274	PHE
71	A	288	VAL
71	A	414	ILE
71	A	435	LEU
71	A	497	GLU
71	A	511	ARG
71	A	522	ARG
71	A	526	GLU
71	A	528	LEU
71	A	554	LEU
71	A	573	LYS
71	A	579	LEU
72	A	67	LEU
72	A	159	ASP
72	A	165	VAL
72	A	189	LEU

Model ID	Chain	Residue ID	Residue type
72	A	210	LYS
72	A	253	LEU
72	A	353	LEU
72	A	453	LYS
72	A	476	LEU
72	A	489	ILE
72	A	498	SER
72	A	535	MET
72	A	547	GLU
73	A	13	LEU
73	A	70	THR
73	A	141	GLN
73	A	167	ASP
73	A	177	ASP
73	A	179	VAL
73	A	189	LEU
73	A	206	LEU
73	A	296	LEU
73	A	308	ASP
73	A	321	GLN
73	A	332	ILE
73	A	335	TYR
73	A	343	VAL

Model ID	Chain	Residue ID	Residue type
73	A	348	GLU
73	A	350	LEU
73	A	356	LEU
73	A	374	LYS
73	A	379	LEU
73	A	422	VAL
73	A	451	PRO
73	A	528	LEU
73	A	560	LEU
73	A	561	LEU
74	A	5	ILE
74	A	13	LEU
74	A	28	LEU
74	A	39	VAL
74	A	40	VAL
74	A	46	LEU
74	A	54	LEU
74	A	58	LEU
74	A	63	LYS
74	A	67	LEU
74	A	75	THR
74	A	78	ILE
74	A	80	MET

Model ID	Chain	Residue ID	Residue type
74	A	111	ASN
74	A	114	TRP
74	A	115	ILE
74	A	120	VAL
74	A	122	LEU
74	A	127	VAL
74	A	136	GLN
74	A	137	GLN
74	A	139	MET
74	A	143	TYR
74	A	170	ASP
74	A	174	PHE
74	A	175	PHE
74	A	180	TRP
74	A	182	LEU
74	A	187	LEU
74	A	189	LEU
74	A	190	GLU
74	A	206	LEU
74	A	215	LYS
74	A	220	ASN
74	A	229	PHE
74	A	232	LYS

Model ID	Chain	Residue ID	Residue type
74	A	233	LYS
74	A	244	ARG
74	A	252	LYS
74	A	261	GLU
74	A	265	GLN
74	A	266	VAL
74	A	288	VAL
74	A	292	ARG
74	A	294	GLU
74	A	296	LEU
74	A	313	GLU
74	A	328	VAL
74	A	343	VAL
74	A	350	LEU
74	A	353	LEU
74	A	361	GLU
74	A	366	GLU
74	A	376	VAL
74	A	384	LEU
74	A	388	LEU
74	A	390	LYS
74	A	391	LYS
74	A	415	PHE

Model ID	Chain	Residue ID	Residue type
74	A	423	LYS
74	A	435	LEU
74	A	440	LEU
74	A	441	GLN
74	A	444	LYS
74	A	449	GLU
74	A	453	LYS
74	A	476	LEU
74	A	485	LYS
74	A	489	ILE
74	A	491	VAL
74	A	493	ARG
74	A	495	LYS
74	A	497	GLU
74	A	506	LEU
74	A	518	GLU
74	A	524	TYR
74	A	531	LEU
74	A	536	GLU
74	A	543	LEU
74	A	545	GLU
74	A	550	LEU
74	A	552	LEU

Model ID	Chain	Residue ID	Residue type
74	A	561	LEU
74	A	565	PHE
74	A	568	GLU
74	A	570	ARG
74	A	578	ASP
74	A	582	LYS
75	A	11	MET
75	A	13	LEU
75	A	20	ARG
75	A	28	LEU
75	A	39	VAL
75	A	41	VAL
75	A	46	LEU
75	A	48	ARG
75	A	51	LYS
75	A	54	LEU
75	A	58	LEU
75	A	61	LYS
75	A	63	LYS
75	A	65	PHE
75	A	74	HIS
75	A	76	LYS
75	A	78	ILE

Model ID	Chain	Residue ID	Residue type
75	A	92	ILE
75	A	101	LEU
75	A	104	VAL
75	A	111	ASN
75	A	112	ASP
75	A	114	TRP
75	A	127	VAL
75	A	131	ILE
75	A	135	ASN
75	A	137	GLN
75	A	143	TYR
75	A	147	GLU
75	A	155	LYS
75	A	163	ASN
75	A	165	VAL
75	A	166	GLU
75	A	175	PHE
75	A	183	ARG
75	A	189	LEU
75	A	194	GLN
75	A	201	TYR
75	A	206	LEU
75	A	208	LEU

Model ID	Chain	Residue ID	Residue type
75	A	219	PHE
75	A	220	ASN
75	A	225	CYS
75	A	226	ILE
75	A	229	PHE
75	A	233	LYS
75	A	234	LYS
75	A	252	LYS
75	A	257	GLU
75	A	281	THR
75	A	282	LEU
75	A	294	GLU
75	A	298	LEU
75	A	313	GLU
75	A	323	GLU
75	A	330	LYS
75	A	337	GLN
75	A	341	GLN
75	A	342	LYS
75	A	351	GLN
75	A	363	GLU
75	A	375	ASP
75	A	381	GLN

Model ID	Chain	Residue ID	Residue type
75	A	384	LEU
75	A	387	GLN
75	A	388	LEU
75	A	395	PHE
75	A	406	ARG
75	A	411	LEU
75	A	413	VAL
75	A	418	LEU
75	A	434	ARG
75	A	443	LEU
75	A	447	TYR
75	A	453	LYS
75	A	459	GLU
75	A	461	LEU
75	A	462	GLN
75	A	464	TYR
75	A	465	LEU
75	A	468	LYS
75	A	475	ILE
75	A	488	GLU
75	A	490	GLU
75	A	495	LYS
75	A	504	LYS

Model ID	Chain	Residue ID	Residue type
75	A	512	LYS
75	A	514	GLU
75	A	518	GLU
75	A	519	GLN
75	A	520	LYS
75	A	522	ARG
75	A	531	LEU
75	A	543	LEU
75	A	561	LEU
75	A	562	LYS
75	A	565	PHE
75	A	566	GLN
75	A	568	GLU
75	A	573	LYS
75	A	576	ILE
76	A	11	MET
76	A	14	ILE
76	A	87	LYS
76	A	108	ASP
76	A	122	LEU
76	A	159	ASP
76	A	163	ASN
76	A	198	PRO

Model ID	Chain	Residue ID	Residue type
76	A	253	LEU
76	A	256	GLU
76	A	292	ARG
76	A	293	LEU
76	A	358	ARG
76	A	390	LYS
76	A	399	ASN
76	A	453	LYS
76	A	473	ASP
76	A	475	ILE
76	A	543	LEU
76	A	566	GLN
76	A	580	GLN
77	A	13	LEU
77	A	122	LEU
77	A	129	ASN
77	A	143	TYR
77	A	151	ARG
77	A	159	ASP
77	A	161	ASN
77	A	162	GLU
77	A	178	PHE
77	A	189	LEU

Model ID	Chain	Residue ID	Residue type
77	A	233	LYS
77	A	292	ARG
77	A	294	GLU
77	A	358	ARG
77	A	453	LYS
77	A	550	LEU
77	A	566	GLN
78	A	4	GLU
78	A	78	ILE
78	A	112	ASP
78	A	151	ARG
78	A	165	VAL
78	A	179	VAL
78	A	189	LEU
78	A	192	ASP
78	A	195	PRO
78	A	253	LEU
78	A	266	VAL
78	A	292	ARG
78	A	302	ASN
78	A	345	LEU
78	A	350	LEU
78	A	395	PHE

Model ID	Chain	Residue ID	Residue type
78	A	453	LYS
78	A	456	GLN
78	A	471	MET
78	A	554	LEU
78	A	560	LEU
79	A	43	ILE
79	A	67	LEU
79	A	112	ASP
79	A	181	THR
79	A	186	SER
79	A	189	LEU
79	A	210	LYS
79	A	221	LEU
79	A	242	VAL
79	A	253	LEU
79	A	293	LEU
79	A	376	VAL
79	A	392	ARG
79	A	397	LYS
79	A	453	LYS
79	A	494	VAL
79	A	568	GLU
80	A	28	LEU

Model ID	Chain	Residue ID	Residue type
80	A	41	VAL
80	A	53	TYR
80	A	67	LEU
80	A	92	ILE
80	A	121	LEU
80	A	130	SER
80	A	139	MET
80	A	176	PRO
80	A	223	ARG
80	A	247	LEU
80	A	251	GLU
80	A	292	ARG
80	A	382	LYS
80	A	400	GLN
80	A	441	GLN
80	A	443	LEU
80	A	494	VAL
81	A	13	LEU
81	A	32	SER
81	A	38	MET
81	A	40	VAL
81	A	51	LYS
81	A	58	LEU

Model ID	Chain	Residue ID	Residue type
81	A	95	LEU
81	A	114	TRP
81	A	151	ARG
81	A	188	ASP
81	A	202	LEU
81	A	223	ARG
81	A	229	PHE
81	A	272	TYR
81	A	322	ILE
81	A	370	ARG
81	A	380	PHE
81	A	384	LEU
81	A	450	GLU
81	A	451	PRO
81	A	469	GLU
82	A	38	MET
82	A	40	VAL
82	A	51	LYS
82	A	112	ASP
82	A	129	ASN
82	A	195	PRO
82	A	202	LEU
82	A	222	PRO

Model ID	Chain	Residue ID	Residue type
82	A	263	VAL
82	A	266	VAL
82	A	311	CYS
82	A	335	TYR
82	A	370	ARG
82	A	379	LEU
82	A	382	LYS
82	A	384	LEU
82	A	422	VAL
82	A	451	PRO
82	A	482	LEU
82	A	487	LYS
82	A	516	MET
82	A	579	LEU
83	A	46	LEU
83	A	53	TYR
83	A	148	LEU
83	A	247	LEU
83	A	249	GLN
83	A	253	LEU
83	A	263	VAL
83	A	266	VAL
83	A	281	THR

Model ID	Chain	Residue ID	Residue type
83	A	294	GLU
83	A	322	ILE
83	A	357	HIS
83	A	358	ARG
83	A	406	ARG
83	A	443	LEU
83	A	472	THR
83	A	481	THR
83	A	491	VAL
84	A	6	HIS
84	A	11	MET
84	A	13	LEU
84	A	14	ILE
84	A	18	ASN
84	A	28	LEU
84	A	29	LYS
84	A	34	ILE
84	A	39	VAL
84	A	40	VAL
84	A	41	VAL
84	A	46	LEU
84	A	54	LEU
84	A	63	LYS

Model ID	Chain	Residue ID	Residue type
84	A	65	PHE
84	A	72	GLN
84	A	75	THR
84	A	78	ILE
84	A	83	VAL
84	A	106	LYS
84	A	114	TRP
84	A	115	ILE
84	A	121	LEU
84	A	122	LEU
84	A	134	ILE
84	A	145	VAL
84	A	155	LYS
84	A	167	ASP
84	A	172	VAL
84	A	177	ASP
84	A	179	VAL
84	A	200	GLU
84	A	201	TYR
84	A	202	LEU
84	A	208	LEU
84	A	210	LYS
84	A	214	GLN

Model ID	Chain	Residue ID	Residue type
84	A	221	LEU
84	A	224	LEU
84	A	227	ARG
84	A	228	LYS
84	A	229	PHE
84	A	232	LYS
84	A	244	ARG
84	A	247	LEU
84	A	254	GLN
84	A	265	GLN
84	A	278	LYS
84	A	288	VAL
84	A	292	ARG
84	A	294	GLU
84	A	304	ILE
84	A	309	LEU
84	A	319	LEU
84	A	334	HIS
84	A	335	TYR
84	A	336	GLU
84	A	343	VAL
84	A	348	GLU
84	A	350	LEU

Model ID	Chain	Residue ID	Residue type
84	A	351	GLN
84	A	354	LEU
84	A	357	HIS
84	A	375	ASP
84	A	388	LEU
84	A	390	LYS
84	A	392	ARG
84	A	427	TYR
84	A	437	VAL
84	A	442	ASP
84	A	450	GLU
84	A	456	GLN
84	A	461	LEU
84	A	462	GLN
84	A	477	GLN
84	A	478	THR
84	A	492	GLU
84	A	495	LYS
84	A	497	GLU
84	A	500	GLN
84	A	528	LEU
84	A	529	LYS
84	A	531	LEU

Model ID	Chain	Residue ID	Residue type
84	A	550	LEU
84	A	554	LEU
84	A	562	LYS
84	A	571	ILE
84	A	579	LEU
85	A	5	ILE
85	A	40	VAL
85	A	71	VAL
85	A	114	TRP
85	A	127	VAL
85	A	129	ASN
85	A	149	THR
85	A	174	PHE
85	A	189	LEU
85	A	201	TYR
85	A	202	LEU
85	A	208	LEU
85	A	224	LEU
85	A	231	PRO
85	A	253	LEU
85	A	266	VAL
85	A	278	LYS
85	A	420	GLU

Model ID	Chain	Residue ID	Residue type
85	A	436	PHE
85	A	464	TYR
85	A	468	LYS
85	A	481	THR
85	A	540	VAL
85	A	560	LEU
85	A	570	ARG
85	A	579	LEU
86	A	36	GLN
86	A	67	LEU
86	A	122	LEU
86	A	124	SER
86	A	131	ILE
86	A	143	TYR
86	A	144	TYR
86	A	155	LYS
86	A	162	GLU
86	A	189	LEU
86	A	210	LYS
86	A	226	ILE
86	A	238	PHE
86	A	253	LEU
86	A	263	VAL

Model ID	Chain	Residue ID	Residue type
86	A	297	VAL
86	A	301	VAL
86	A	357	HIS
86	A	380	PHE
86	A	453	LYS
86	A	459	GLU
86	A	482	LEU
87	A	3	SER
87	A	4	GLU
87	A	5	ILE
87	A	7	MET
87	A	11	MET
87	A	13	LEU
87	A	14	ILE
87	A	28	LEU
87	A	56	ASN
87	A	63	LYS
87	A	67	LEU
87	A	75	THR
87	A	76	LYS
87	A	78	ILE
87	A	80	MET
87	A	85	HIS

Model ID	Chain	Residue ID	Residue type
87	A	88	LYS
87	A	94	VAL
87	A	111	ASN
87	A	114	TRP
87	A	115	ILE
87	A	120	VAL
87	A	124	SER
87	A	127	VAL
87	A	131	ILE
87	A	134	ILE
87	A	143	TYR
87	A	145	VAL
87	A	159	ASP
87	A	167	ASP
87	A	171	PHE
87	A	174	PHE
87	A	175	PHE
87	A	176	PRO
87	A	180	TRP
87	A	183	ARG
87	A	187	LEU
87	A	189	LEU
87	A	199	ASP

Model ID	Chain	Residue ID	Residue type
87	A	206	LEU
87	A	220	ASN
87	A	223	ARG
87	A	226	ILE
87	A	231	PRO
87	A	234	LYS
87	A	237	VAL
87	A	244	ARG
87	A	249	GLN
87	A	255	ASP
87	A	265	GLN
87	A	274	PHE
87	A	278	LYS
87	A	282	LEU
87	A	288	VAL
87	A	292	ARG
87	A	297	VAL
87	A	298	LEU
87	A	309	LEU
87	A	319	LEU
87	A	323	GLU
87	A	324	ASN
87	A	328	VAL

Model ID	Chain	Residue ID	Residue type
87	A	330	LYS
87	A	341	GLN
87	A	342	LYS
87	A	350	LEU
87	A	351	GLN
87	A	353	LEU
87	A	367	VAL
87	A	379	LEU
87	A	381	GLN
87	A	384	LEU
87	A	387	GLN
87	A	388	LEU
87	A	398	GLN
87	A	403	SER
87	A	405	ASP
87	A	406	ARG
87	A	412	GLN
87	A	422	VAL
87	A	434	ARG
87	A	435	LEU
87	A	439	LYS
87	A	443	LEU
87	A	449	GLU

Model ID	Chain	Residue ID	Residue type
87	A	450	GLU
87	A	452	ARG
87	A	455	ILE
87	A	459	GLU
87	A	462	GLN
87	A	465	LEU
87	A	468	LYS
87	A	476	LEU
87	A	477	GLN
87	A	482	LEU
87	A	486	GLU
87	A	495	LYS
87	A	506	LEU
87	A	508	GLU
87	A	511	ARG
87	A	514	GLU
87	A	521	GLU
87	A	522	ARG
87	A	526	GLU
87	A	528	LEU
87	A	530	GLN
87	A	531	LEU
87	A	539	ARG

Model ID	Chain	Residue ID	Residue type
87	A	543	LEU
87	A	546	GLN
87	A	550	LEU
87	A	552	LEU
87	A	553	LYS
87	A	554	LEU
87	A	555	GLN
87	A	560	LEU
87	A	561	LEU
87	A	562	LYS
87	A	565	PHE
87	A	574	ASN
88	A	4	GLU
88	A	5	ILE
88	A	13	LEU
88	A	29	LYS
88	A	31	LEU
88	A	39	VAL
88	A	44	VAL
88	A	46	LEU
88	A	48	ARG
88	A	54	LEU
88	A	65	PHE

Model ID	Chain	Residue ID	Residue type
88	A	67	LEU
88	A	75	THR
88	A	78	ILE
88	A	80	MET
88	A	81	TRP
88	A	87	LYS
88	A	91	HIS
88	A	92	ILE
88	A	93	LEU
88	A	94	VAL
88	A	101	LEU
88	A	108	ASP
88	A	111	ASN
88	A	114	TRP
88	A	116	PHE
88	A	120	VAL
88	A	122	LEU
88	A	127	VAL
88	A	135	ASN
88	A	136	GLN
88	A	143	TYR
88	A	145	VAL
88	A	147	GLU

Model ID	Chain	Residue ID	Residue type
88	A	150	HIS
88	A	155	LYS
88	A	157	SER
88	A	164	GLU
88	A	165	VAL
88	A	170	ASP
88	A	174	PHE
88	A	175	PHE
88	A	180	TRP
88	A	187	LEU
88	A	201	TYR
88	A	206	LEU
88	A	214	GLN
88	A	220	ASN
88	A	223	ARG
88	A	226	ILE
88	A	227	ARG
88	A	229	PHE
88	A	247	LEU
88	A	250	LEU
88	A	256	GLU
88	A	274	PHE
88	A	279	THR

Model ID	Chain	Residue ID	Residue type
88	A	282	LEU
88	A	292	ARG
88	A	294	GLU
88	A	301	VAL
88	A	304	ILE
88	A	309	LEU
88	A	343	VAL
88	A	350	LEU
88	A	351	GLN
88	A	354	LEU
88	A	356	LEU
88	A	374	LYS
88	A	379	LEU
88	A	381	GLN
88	A	387	GLN
88	A	391	LYS
88	A	392	ARG
88	A	399	ASN
88	A	412	GLN
88	A	413	VAL
88	A	421	GLU
88	A	440	LEU
88	A	443	LEU

Model ID	Chain	Residue ID	Residue type
88	A	447	TYR
88	A	448	TYR
88	A	465	LEU
88	A	466	LYS
88	A	473	ASP
88	A	480	GLN
88	A	494	VAL
88	A	495	LYS
88	A	500	GLN
88	A	516	MET
88	A	528	LEU
88	A	531	LEU
88	A	542	LEU
88	A	543	LEU
88	A	545	GLU
88	A	548	ARG
88	A	552	LEU
88	A	556	GLU
88	A	561	LEU
88	A	563	GLU
88	A	565	PHE
88	A	567	LYS
88	A	573	LYS

Model ID	Chain	Residue ID	Residue type
88	A	577	GLN
88	A	579	LEU
89	A	13	LEU
89	A	34	ILE
89	A	39	VAL
89	A	40	VAL
89	A	41	VAL
89	A	44	VAL
89	A	54	LEU
89	A	58	LEU
89	A	61	LYS
89	A	62	LYS
89	A	78	ILE
89	A	80	MET
89	A	92	ILE
89	A	101	LEU
89	A	105	GLU
89	A	106	LYS
89	A	112	ASP
89	A	114	TRP
89	A	115	ILE
89	A	120	VAL
89	A	121	LEU

Model ID	Chain	Residue ID	Residue type
89	A	123	SER
89	A	143	TYR
89	A	145	VAL
89	A	151	ARG
89	A	152	ILE
89	A	153	ARG
89	A	155	LYS
89	A	163	ASN
89	A	165	VAL
89	A	171	PHE
89	A	172	VAL
89	A	187	LEU
89	A	189	LEU
89	A	200	GLU
89	A	201	TYR
89	A	202	LEU
89	A	210	LYS
89	A	226	ILE
89	A	228	LYS
89	A	229	PHE
89	A	243	HIS
89	A	247	LEU
89	A	251	GLU

Model ID	Chain	Residue ID	Residue type
89	A	257	GLU
89	A	263	VAL
89	A	265	GLN
89	A	274	PHE
89	A	278	LYS
89	A	287	GLN
89	A	288	VAL
89	A	292	ARG
89	A	293	LEU
89	A	308	ASP
89	A	309	LEU
89	A	321	GLN
89	A	341	GLN
89	A	356	LEU
89	A	358	ARG
89	A	374	LYS
89	A	378	HIS
89	A	379	LEU
89	A	382	LYS
89	A	384	LEU
89	A	390	LYS
89	A	391	LYS
89	A	392	ARG

Model ID	Chain	Residue ID	Residue type
89	A	397	LYS
89	A	398	GLN
89	A	418	LEU
89	A	421	GLU
89	A	423	LYS
89	A	427	TYR
89	A	440	LEU
89	A	445	LYS
89	A	446	LYS
89	A	450	GLU
89	A	458	GLU
89	A	461	LEU
89	A	464	TYR
89	A	465	LEU
89	A	491	VAL
89	A	494	VAL
89	A	495	LYS
89	A	506	LEU
89	A	507	HIS
89	A	512	LYS
89	A	517	MET
89	A	521	GLU
89	A	528	LEU

Model ID	Chain	Residue ID	Residue type
89	A	529	LYS
89	A	531	LEU
89	A	543	LEU
89	A	544	LYS
89	A	560	LEU
89	A	561	LEU
89	A	567	LYS
89	A	568	GLU
89	A	573	LYS
89	A	579	LEU
90	A	17	THR
90	A	51	LYS
90	A	72	GLN
90	A	151	ARG
90	A	178	PHE
90	A	179	VAL
90	A	189	LEU
90	A	202	LEU
90	A	208	LEU
90	A	217	GLU
90	A	253	LEU
90	A	265	GLN
90	A	292	ARG

Model ID	Chain	Residue ID	Residue type
90	A	345	LEU
90	A	351	GLN
90	A	361	GLU
90	A	367	VAL
90	A	427	TYR
90	A	435	LEU
90	A	450	GLU
90	A	528	LEU
90	A	531	LEU
90	A	560	LEU
91	A	13	LEU
91	A	28	LEU
91	A	34	ILE
91	A	39	VAL
91	A	67	LEU
91	A	104	VAL
91	A	125	THR
91	A	131	ILE
91	A	134	ILE
91	A	177	ASP
91	A	182	LEU
91	A	218	THR
91	A	223	ARG

Model ID	Chain	Residue ID	Residue type
91	A	253	LEU
91	A	254	GLN
91	A	261	GLU
91	A	262	PHE
91	A	265	GLN
91	A	280	LYS
91	A	294	GLU
91	A	309	LEU
91	A	312	MET
91	A	317	LEU
91	A	330	LYS
91	A	342	LYS
91	A	346	PRO
91	A	356	LEU
91	A	360	SER
91	A	375	ASP
91	A	378	HIS
91	A	384	LEU
91	A	404	SER
91	A	411	LEU
91	A	418	LEU
91	A	435	LEU
91	A	460	ILE

Model ID	Chain	Residue ID	Residue type
91	A	472	THR
91	A	475	ILE
91	A	506	LEU
91	A	512	LYS
91	A	552	LEU
92	A	8	THR
92	A	16	ASN
92	A	39	VAL
92	A	40	VAL
92	A	48	ARG
92	A	75	THR
92	A	112	ASP
92	A	129	ASN
92	A	177	ASP
92	A	206	LEU
92	A	207	LYS
92	A	237	VAL
92	A	254	GLN
92	A	255	ASP
92	A	272	TYR
92	A	280	LYS
92	A	282	LEU
92	A	292	ARG

Model ID	Chain	Residue ID	Residue type
92	A	294	GLU
92	A	296	LEU
92	A	350	LEU
92	A	359	ASP
92	A	374	LYS
92	A	381	GLN
92	A	400	GLN
92	A	426	ILE
92	A	453	LYS
92	A	472	THR
92	A	478	THR
92	A	492	GLU
92	A	493	ARG
92	A	494	VAL
92	A	518	GLU
92	A	561	LEU
92	A	573	LYS
93	A	4	GLU
93	A	41	VAL
93	A	44	VAL
93	A	76	LYS
93	A	125	THR
93	A	126	PHE

Model ID	Chain	Residue ID	Residue type
93	A	139	MET
93	A	144	TYR
93	A	182	LEU
93	A	189	LEU
93	A	199	ASP
93	A	201	TYR
93	A	221	LEU
93	A	223	ARG
93	A	253	LEU
93	A	266	VAL
93	A	294	GLU
93	A	304	ILE
93	A	356	LEU
93	A	377	ASP
93	A	380	PHE
93	A	404	SER
93	A	407	CYS
93	A	411	LEU
93	A	418	LEU
93	A	452	ARG
93	A	468	LYS
93	A	472	THR
93	A	552	LEU

Model ID	Chain	Residue ID	Residue type
94	A	4	GLU
94	A	5	ILE
94	A	11	MET
94	A	13	LEU
94	A	28	LEU
94	A	34	ILE
94	A	36	GLN
94	A	39	VAL
94	A	40	VAL
94	A	44	VAL
94	A	47	TYR
94	A	48	ARG
94	A	54	LEU
94	A	58	LEU
94	A	61	LYS
94	A	78	ILE
94	A	95	LEU
94	A	96	LEU
94	A	101	LEU
94	A	114	TRP
94	A	115	ILE
94	A	120	VAL
94	A	124	SER

Model ID	Chain	Residue ID	Residue type
94	A	127	VAL
94	A	134	ILE
94	A	145	VAL
94	A	151	ARG
94	A	155	LYS
94	A	165	VAL
94	A	171	PHE
94	A	177	ASP
94	A	179	VAL
94	A	189	LEU
94	A	209	LYS
94	A	210	LYS
94	A	214	GLN
94	A	216	ASP
94	A	224	LEU
94	A	233	LYS
94	A	243	HIS
94	A	244	ARG
94	A	247	LEU
94	A	252	LYS
94	A	255	ASP
94	A	257	GLU
94	A	274	PHE

Model ID	Chain	Residue ID	Residue type
94	A	278	LYS
94	A	292	ARG
94	A	294	GLU
94	A	298	LEU
94	A	304	ILE
94	A	312	MET
94	A	313	GLU
94	A	317	LEU
94	A	323	GLU
94	A	330	LYS
94	A	350	LEU
94	A	354	LEU
94	A	356	LEU
94	A	369	ILE
94	A	376	VAL
94	A	384	LEU
94	A	388	LEU
94	A	390	LYS
94	A	397	LYS
94	A	399	ASN
94	A	401	GLU
94	A	411	LEU
94	A	414	ILE

Model ID	Chain	Residue ID	Residue type
94	A	421	GLU
94	A	426	ILE
94	A	427	TYR
94	A	443	LEU
94	A	446	LYS
94	A	449	GLU
94	A	456	GLN
94	A	465	LEU
94	A	468	LYS
94	A	482	LEU
94	A	486	GLU
94	A	487	LYS
94	A	494	VAL
94	A	495	LYS
94	A	506	LEU
94	A	524	TYR
94	A	531	LEU
94	A	543	LEU
94	A	550	LEU
94	A	556	GLU
94	A	558	GLU
94	A	561	LEU
94	A	563	GLU

Model ID	Chain	Residue ID	Residue type
94	A	565	PHE
94	A	576	ILE
94	A	579	LEU
95	A	53	TYR
95	A	94	VAL
95	A	122	LEU
95	A	124	SER
95	A	127	VAL
95	A	139	MET
95	A	151	ARG
95	A	174	PHE
95	A	212	THR
95	A	243	HIS
95	A	251	GLU
95	A	266	VAL
95	A	294	GLU
95	A	406	ARG
95	A	497	GLU
95	A	526	GLU
96	A	10	PRO
96	A	13	LEU
96	A	14	ILE
96	A	28	LEU

Model ID	Chain	Residue ID	Residue type
96	A	34	ILE
96	A	37	PRO
96	A	39	VAL
96	A	40	VAL
96	A	46	LEU
96	A	48	ARG
96	A	54	LEU
96	A	55	MET
96	A	57	LYS
96	A	61	LYS
96	A	62	LYS
96	A	63	LYS
96	A	71	VAL
96	A	73	SER
96	A	74	HIS
96	A	78	ILE
96	A	81	TRP
96	A	91	HIS
96	A	93	LEU
96	A	104	VAL
96	A	106	LYS
96	A	114	TRP
96	A	115	ILE

Model ID	Chain	Residue ID	Residue type
96	A	120	VAL
96	A	122	LEU
96	A	131	ILE
96	A	137	GLN
96	A	141	GLN
96	A	143	TYR
96	A	160	GLU
96	A	162	GLU
96	A	192	ASP
96	A	202	LEU
96	A	208	LEU
96	A	220	ASN
96	A	227	ARG
96	A	230	PHE
96	A	246	LYS
96	A	254	GLN
96	A	256	GLU
96	A	257	GLU
96	A	265	GLN
96	A	266	VAL
96	A	274	PHE
96	A	282	LEU
96	A	330	LYS

Model ID	Chain	Residue ID	Residue type
96	A	350	LEU
96	A	351	GLN
96	A	356	LEU
96	A	365	ILE
96	A	367	VAL
96	A	370	ARG
96	A	373	PHE
96	A	374	LYS
96	A	376	VAL
96	A	379	LEU
96	A	383	GLU
96	A	384	LEU
96	A	387	GLN
96	A	388	LEU
96	A	391	LYS
96	A	399	ASN
96	A	406	ARG
96	A	410	LEU
96	A	419	GLU
96	A	423	LYS
96	A	427	TYR
96	A	439	LYS
96	A	441	GLN

Model ID	Chain	Residue ID	Residue type
96	A	447	TYR
96	A	453	LYS
96	A	456	GLN
96	A	461	LEU
96	A	464	TYR
96	A	465	LEU
96	A	482	LEU
96	A	485	LYS
96	A	506	LEU
96	A	525	GLN
96	A	529	LYS
96	A	531	LEU
96	A	539	ARG
96	A	542	LEU
96	A	543	LEU
96	A	550	LEU
96	A	552	LEU
96	A	560	LEU
96	A	561	LEU
96	A	562	LYS
96	A	563	GLU
96	A	568	GLU
96	A	578	ASP

Model ID	Chain	Residue ID	Residue type
97	A	13	LEU
97	A	67	LEU
97	A	93	LEU
97	A	114	TRP
97	A	131	ILE
97	A	136	GLN
97	A	145	VAL
97	A	176	PRO
97	A	182	LEU
97	A	192	ASP
97	A	196	LEU
97	A	223	ARG
97	A	226	ILE
97	A	231	PRO
97	A	251	GLU
97	A	253	LEU
97	A	317	LEU
97	A	332	ILE
97	A	406	ARG
97	A	418	LEU
97	A	435	LEU
97	A	451	PRO
97	A	452	ARG

Model ID	Chain	Residue ID	Residue type
97	A	456	GLN
97	A	460	ILE
97	A	468	LYS
97	A	476	LEU
97	A	495	LYS
97	A	566	GLN
98	A	13	LEU
98	A	29	LYS
98	A	34	ILE
98	A	38	MET
98	A	39	VAL
98	A	40	VAL
98	A	46	LEU
98	A	54	LEU
98	A	61	LYS
98	A	63	LYS
98	A	65	PHE
98	A	67	LEU
98	A	74	HIS
98	A	78	ILE
98	A	99	GLU
98	A	101	LEU
98	A	109	ASN

Model ID	Chain	Residue ID	Residue type
98	A	112	ASP
98	A	114	TRP
98	A	115	ILE
98	A	118	LEU
98	A	121	LEU
98	A	127	VAL
98	A	131	ILE
98	A	134	ILE
98	A	137	GLN
98	A	145	VAL
98	A	147	GLU
98	A	151	ARG
98	A	155	LYS
98	A	162	GLU
98	A	182	LEU
98	A	189	LEU
98	A	202	LEU
98	A	214	GLN
98	A	219	PHE
98	A	223	ARG
98	A	226	ILE
98	A	228	LYS
98	A	229	PHE

Model ID	Chain	Residue ID	Residue type
98	A	233	LYS
98	A	243	HIS
98	A	244	ARG
98	A	245	ARG
98	A	247	LEU
98	A	254	GLN
98	A	257	GLU
98	A	258	LEU
98	A	273	ILE
98	A	282	LEU
98	A	286	ILE
98	A	288	VAL
98	A	294	GLU
98	A	309	LEU
98	A	319	LEU
98	A	330	LYS
98	A	354	LEU
98	A	356	LEU
98	A	369	ILE
98	A	374	LYS
98	A	384	LEU
98	A	390	LYS
98	A	392	ARG

Model ID	Chain	Residue ID	Residue type
98	A	427	TYR
98	A	437	VAL
98	A	440	LEU
98	A	453	LYS
98	A	465	LEU
98	A	480	GLN
98	A	488	GLU
98	A	494	VAL
98	A	500	GLN
98	A	512	LYS
98	A	518	GLU
98	A	526	GLU
98	A	527	HIS
98	A	528	LEU
98	A	529	LYS
98	A	531	LEU
98	A	542	LEU
98	A	543	LEU
98	A	544	LYS
98	A	548	ARG
98	A	550	LEU
98	A	552	LEU
98	A	553	LYS

Model ID	Chain	Residue ID	Residue type
98	A	554	LEU
98	A	556	GLU
98	A	557	GLN
98	A	558	GLU
98	A	560	LEU
98	A	566	GLN
98	A	567	LYS
98	A	572	MET
98	A	579	LEU
99	A	18	ASN
99	A	34	ILE
99	A	95	LEU
99	A	101	LEU
99	A	224	LEU
99	A	229	PHE
99	A	249	GLN
99	A	260	PRO
99	A	293	LEU
99	A	328	VAL
99	A	345	LEU
99	A	348	GLU
99	A	350	LEU
99	A	356	LEU

Model ID	Chain	Residue ID	Residue type
99	A	375	ASP
99	A	378	HIS
99	A	383	GLU
99	A	384	LEU
99	A	411	LEU
99	A	505	MET
99	A	517	MET
99	A	560	LEU
100	A	13	LEU
100	A	21	LEU
100	A	34	ILE
100	A	39	VAL
100	A	121	LEU
100	A	186	SER
100	A	189	LEU
100	A	232	LYS
100	A	294	GLU
100	A	343	VAL
100	A	435	LEU
100	A	459	GLU
100	A	493	ARG
100	A	528	LEU
100	A	531	LEU

Model ID	Chain	Residue ID	Residue type
100	A	536	GLU
100	A	579	LEU
101	A	32	SER
101	A	46	LEU
101	A	47	TYR
101	A	51	LYS
101	A	85	HIS
101	A	121	LEU
101	A	162	GLU
101	A	208	LEU
101	A	249	GLN
101	A	291	PRO
101	A	294	GLU
101	A	343	VAL
101	A	353	LEU
101	A	384	LEU
101	A	394	ASP
101	A	411	LEU
101	A	469	GLU
101	A	542	LEU
101	A	561	LEU
101	A	579	LEU
102	A	10	PRO

Model ID	Chain	Residue ID	Residue type
102	A	28	LEU
102	A	39	VAL
102	A	52	SER
102	A	57	LYS
102	A	104	VAL
102	A	127	VAL
102	A	129	ASN
102	A	131	ILE
102	A	139	MET
102	A	146	THR
102	A	179	VAL
102	A	189	LEU
102	A	196	LEU
102	A	202	LEU
102	A	229	PHE
102	A	245	ARG
102	A	250	LEU
102	A	321	GLN
102	A	356	LEU
102	A	378	HIS
102	A	391	LYS
102	A	413	VAL
102	A	418	LEU

Model ID	Chain	Residue ID	Residue type
102	A	426	ILE
102	A	466	LYS
102	A	468	LYS
102	A	471	MET
102	A	484	GLU
102	A	522	ARG
102	A	524	TYR
102	A	526	GLU
102	A	537	ASN
102	A	542	LEU
102	A	552	LEU
102	A	557	GLN
102	A	561	LEU
102	A	579	LEU
103	A	47	TYR
103	A	52	SER
103	A	83	VAL
103	A	95	LEU
103	A	129	ASN
103	A	131	ILE
103	A	186	SER
103	A	199	ASP
103	A	214	GLN

Model ID	Chain	Residue ID	Residue type
103	A	245	ARG
103	A	250	LEU
103	A	292	ARG
103	A	322	ILE
103	A	332	ILE
103	A	344	GLN
103	A	345	LEU
103	A	369	ILE
103	A	379	LEU
103	A	389	GLU
103	A	435	LEU
103	A	539	ARG
103	A	545	GLU
103	A	560	LEU
104	A	38	MET
104	A	46	LEU
104	A	69	SER
104	A	104	VAL
104	A	114	TRP
104	A	129	ASN
104	A	134	ILE
104	A	144	TYR
104	A	152	ILE

Model ID	Chain	Residue ID	Residue type
104	A	179	VAL
104	A	181	THR
104	A	215	LYS
104	A	226	ILE
104	A	227	ARG
104	A	253	LEU
104	A	260	PRO
104	A	268	ASP
104	A	276	ASN
104	A	280	LYS
104	A	283	SER
104	A	288	VAL
104	A	293	LEU
104	A	294	GLU
104	A	297	VAL
104	A	344	GLN
104	A	348	GLU
104	A	354	LEU
104	A	361	GLU
104	A	370	ARG
104	A	399	ASN
104	A	429	LYS
104	A	453	LYS

Model ID	Chain	Residue ID	Residue type
104	A	460	ILE
104	A	462	GLN
104	A	476	LEU
104	A	482	LEU
104	A	516	MET
104	A	520	LYS
104	A	538	ASP
104	A	548	ARG
104	A	567	LYS
104	A	568	GLU
105	A	48	ARG
105	A	71	VAL
105	A	93	LEU
105	A	99	GLU
105	A	131	ILE
105	A	148	LEU
105	A	151	ARG
105	A	179	VAL
105	A	189	LEU
105	A	251	GLU
105	A	294	GLU
105	A	295	SER
105	A	312	MET

Model ID	Chain	Residue ID	Residue type
105	A	319	LEU
105	A	354	LEU
105	A	357	HIS
105	A	415	PHE
105	A	443	LEU
105	A	491	VAL
105	A	541	GLN
105	A	560	LEU
105	A	577	GLN
105	A	581	THR
106	A	58	LEU
106	A	74	HIS
106	A	92	ILE
106	A	127	VAL
106	A	152	ILE
106	A	153	ARG
106	A	159	ASP
106	A	189	LEU
106	A	208	LEU
106	A	215	LYS
106	A	224	LEU
106	A	226	ILE
106	A	233	LYS

Model ID	Chain	Residue ID	Residue type
106	A	264	GLN
106	A	294	GLU
106	A	350	LEU
106	A	369	ILE
106	A	391	LYS
106	A	411	LEU
106	A	476	LEU
106	A	479	ASP
106	A	482	LEU
106	A	511	ARG
106	A	531	LEU
106	A	548	ARG
107	A	12	CYS
107	A	14	ILE
107	A	52	SER
107	A	58	LEU
107	A	95	LEU
107	A	153	ARG
107	A	161	ASN
107	A	189	LEU
107	A	224	LEU
107	A	280	LYS
107	A	293	LEU

Model ID	Chain	Residue ID	Residue type
107	A	294	GLU
107	A	296	LEU
107	A	343	VAL
107	A	354	LEU
107	A	381	GLN
107	A	438	GLN
107	A	462	GLN
107	A	529	LYS
107	A	558	GLU
108	A	11	MET
108	A	13	LEU
108	A	41	VAL
108	A	66	SER
108	A	92	ILE
108	A	105	GLU
108	A	127	VAL
108	A	146	THR
108	A	152	ILE
108	A	189	LEU
108	A	208	LEU
108	A	253	LEU
108	A	293	LEU
108	A	294	GLU

Model ID	Chain	Residue ID	Residue type
108	A	298	LEU
108	A	322	ILE
108	A	328	VAL
108	A	337	GLN
108	A	358	ARG
108	A	374	LYS
108	A	388	LEU
108	A	389	GLU
108	A	414	ILE
108	A	467	SER
108	A	472	THR
108	A	527	HIS
109	A	4	GLU
109	A	58	LEU
109	A	92	ILE
109	A	103	ASP
109	A	148	LEU
109	A	165	VAL
109	A	184	ASP
109	A	208	LEU
109	A	253	LEU
109	A	283	SER
109	A	293	LEU

Model ID	Chain	Residue ID	Residue type
109	A	295	SER
109	A	322	ILE
109	A	337	GLN
109	A	345	LEU
109	A	388	LEU
109	A	411	LEU
109	A	426	ILE
109	A	441	GLN
109	A	478	THR
110	A	14	ILE
110	A	51	LYS
110	A	58	LEU
110	A	67	LEU
110	A	127	VAL
110	A	130	SER
110	A	151	ARG
110	A	166	GLU
110	A	180	TRP
110	A	185	PHE
110	A	223	ARG
110	A	224	LEU
110	A	237	VAL
110	A	335	TYR

Model ID	Chain	Residue ID	Residue type
110	A	355	ASP
110	A	384	LEU
110	A	387	GLN
110	A	418	LEU
110	A	440	LEU
110	A	455	ILE
110	A	482	LEU
110	A	483	THR
110	A	561	LEU
111	A	58	LEU
111	A	71	VAL
111	A	85	HIS
111	A	137	GLN
111	A	144	TYR
111	A	153	ARG
111	A	167	ASP
111	A	189	LEU
111	A	204	TYR
111	A	233	LYS
111	A	292	ARG
111	A	293	LEU
111	A	294	GLU
111	A	295	SER

Model ID	Chain	Residue ID	Residue type
111	A	358	ARG
111	A	420	GLU
111	A	435	LEU
111	A	462	GLN
111	A	479	ASP
111	A	482	LEU
111	A	531	LEU
112	A	4	GLU
112	A	28	LEU
112	A	69	SER
112	A	71	VAL
112	A	114	TRP
112	A	121	LEU
112	A	125	THR
112	A	139	MET
112	A	156	SER
112	A	161	ASN
112	A	174	PHE
112	A	189	LEU
112	A	207	LYS
112	A	229	PHE
112	A	317	LEU
112	A	348	GLU

Model ID	Chain	Residue ID	Residue type
112	A	407	CYS
112	A	458	GLU
112	A	479	ASP
112	A	528	LEU
112	A	531	LEU
112	A	548	ARG
112	A	550	LEU
112	A	560	LEU
112	A	572	MET
113	A	48	ARG
113	A	55	MET
113	A	114	TRP
113	A	127	VAL
113	A	129	ASN
113	A	150	HIS
113	A	181	THR
113	A	190	GLU
113	A	206	LEU
113	A	208	LEU
113	A	229	PHE
113	A	253	LEU
113	A	266	VAL
113	A	278	LYS

Model ID	Chain	Residue ID	Residue type
113	A	288	VAL
113	A	292	ARG
113	A	294	GLU
113	A	297	VAL
113	A	348	GLU
113	A	356	LEU
113	A	369	ILE
113	A	381	GLN
113	A	414	ILE
113	A	426	ILE
113	A	446	LYS
113	A	449	GLU
113	A	452	ARG
113	A	490	GLU
113	A	519	GLN
113	A	522	ARG
113	A	555	GLN
114	A	38	MET
114	A	39	VAL
114	A	40	VAL
114	A	46	LEU
114	A	55	MET
114	A	106	LYS

Model ID	Chain	Residue ID	Residue type
114	A	129	ASN
114	A	134	ILE
114	A	197	THR
114	A	206	LEU
114	A	208	LEU
114	A	214	GLN
114	A	218	THR
114	A	253	LEU
114	A	280	LYS
114	A	294	GLU
114	A	319	LEU
114	A	345	LEU
114	A	347	THR
114	A	348	GLU
114	A	370	ARG
114	A	427	TYR
114	A	546	GLN
114	A	548	ARG
115	A	28	LEU
115	A	46	LEU
115	A	95	LEU
115	A	106	LYS
115	A	127	VAL

Model ID	Chain	Residue ID	Residue type
115	A	134	ILE
115	A	180	TRP
115	A	181	THR
115	A	206	LEU
115	A	224	LEU
115	A	253	LEU
115	A	272	TYR
115	A	280	LYS
115	A	294	GLU
115	A	308	ASP
115	A	328	VAL
115	A	345	LEU
115	A	354	LEU
115	A	370	ARG
115	A	374	LYS
115	A	426	ILE
115	A	439	LYS
115	A	461	LEU
115	A	481	THR
115	A	482	LEU
115	A	533	GLU
115	A	536	GLU
115	A	548	ARG

Model ID	Chain	Residue ID	Residue type
115	A	556	GLU
115	A	578	ASP
116	A	7	MET
116	A	8	THR
116	A	17	THR
116	A	39	VAL
116	A	46	LEU
116	A	104	VAL
116	A	129	ASN
116	A	134	ILE
116	A	141	GLN
116	A	161	ASN
116	A	172	VAL
116	A	185	PHE
116	A	188	ASP
116	A	208	LEU
116	A	224	LEU
116	A	229	PHE
116	A	253	LEU
116	A	274	PHE
116	A	280	LYS
116	A	294	GLU
116	A	298	LEU

Model ID	Chain	Residue ID	Residue type
116	A	330	LYS
116	A	414	ILE
116	A	453	LYS
116	A	476	LEU
116	A	480	GLN
116	A	481	THR
116	A	510	GLN
116	A	516	MET
116	A	520	LYS
116	A	528	LEU
116	A	530	GLN
116	A	548	ARG
116	A	567	LYS
117	A	41	VAL
117	A	57	LYS
117	A	83	VAL
117	A	95	LEU
117	A	106	LYS
117	A	127	VAL
117	A	134	ILE
117	A	182	LEU
117	A	190	GLU
117	A	196	LEU

Model ID	Chain	Residue ID	Residue type
117	A	206	LEU
117	A	208	LEU
117	A	224	LEU
117	A	237	VAL
117	A	242	VAL
117	A	280	LYS
117	A	294	GLU
117	A	298	LEU
117	A	328	VAL
117	A	370	ARG
117	A	532	THR
117	A	548	ARG
117	A	576	ILE
118	A	5	ILE
118	A	13	LEU
118	A	40	VAL
118	A	52	SER
118	A	70	THR
118	A	92	ILE
118	A	94	VAL
118	A	120	VAL
118	A	131	ILE
118	A	151	ARG

Model ID	Chain	Residue ID	Residue type
118	A	165	VAL
118	A	166	GLU
118	A	189	LEU
118	A	281	THR
118	A	304	ILE
118	A	356	LEU
118	A	384	LEU
118	A	406	ARG
118	A	453	LYS
118	A	459	GLU
118	A	472	THR
118	A	526	GLU
118	A	560	LEU
119	A	7	MET
119	A	41	VAL
119	A	127	VAL
119	A	202	LEU
119	A	274	PHE
119	A	286	ILE
119	A	354	LEU
119	A	384	LEU
119	A	391	LYS
119	A	528	LEU

Model ID	Chain	Residue ID	Residue type
119	A	535	MET
119	A	553	LYS
119	A	579	LEU
120	A	4	GLU
120	A	13	LEU
120	A	14	ILE
120	A	47	TYR
120	A	51	LYS
120	A	95	LEU
120	A	126	PHE
120	A	154	SER
120	A	165	VAL
120	A	196	LEU
120	A	202	LEU
120	A	226	ILE
120	A	251	GLU
120	A	253	LEU
120	A	292	ARG
120	A	339	MET
120	A	406	ARG
120	A	433	TYR
120	A	434	ARG
120	A	446	LYS

Model ID	Chain	Residue ID	Residue type
120	A	453	LYS
120	A	455	ILE
120	A	552	LEU
120	A	560	LEU
120	A	580	GLN
121	A	1	MET
121	A	41	VAL
121	A	46	LEU
121	A	58	LEU
121	A	129	ASN
121	A	131	ILE
121	A	147	GLU
121	A	148	LEU
121	A	189	LEU
121	A	208	LEU
121	A	293	LEU
121	A	298	LEU
121	A	316	VAL
121	A	388	LEU
121	A	389	GLU
121	A	527	HIS
121	A	542	LEU
122	A	13	LEU

Model ID	Chain	Residue ID	Residue type
122	A	20	ARG
122	A	38	MET
122	A	80	MET
122	A	104	VAL
122	A	160	GLU
122	A	189	LEU
122	A	221	LEU
122	A	247	LEU
122	A	266	VAL
122	A	294	GLU
122	A	309	LEU
122	A	418	LEU
122	A	427	TYR
122	A	440	LEU
122	A	552	LEU
122	A	560	LEU
122	A	561	LEU
122	A	573	LYS
122	A	583	MET
123	A	21	LEU
123	A	78	ILE
123	A	160	GLU
123	A	213	SER

Model ID	Chain	Residue ID	Residue type
123	A	226	ILE
123	A	234	LYS
123	A	273	ILE
123	A	293	LEU
123	A	342	LYS
123	A	348	GLU
123	A	353	LEU
123	A	356	LEU
123	A	379	LEU
123	A	389	GLU
123	A	411	LEU
123	A	418	LEU
123	A	427	TYR
123	A	443	LEU
123	A	506	LEU
123	A	552	LEU
123	A	561	LEU
123	A	579	LEU
124	A	14	ILE
124	A	22	MET
124	A	56	ASN
124	A	80	MET
124	A	92	ILE

Model ID	Chain	Residue ID	Residue type
124	A	95	LEU
124	A	105	GLU
124	A	129	ASN
124	A	131	ILE
124	A	179	VAL
124	A	189	LEU
124	A	203	THR
124	A	274	PHE
124	A	292	ARG
124	A	317	LEU
124	A	330	LYS
124	A	353	LEU
124	A	365	ILE
124	A	374	LYS
124	A	407	CYS
124	A	453	LYS
124	A	459	GLU
124	A	484	GLU
124	A	582	LYS
125	A	16	ASN
125	A	80	MET
125	A	95	LEU
125	A	131	ILE

Model ID	Chain	Residue ID	Residue type
125	A	157	SER
125	A	188	ASP
125	A	189	LEU
125	A	199	ASP
125	A	292	ARG
125	A	293	LEU
125	A	324	ASN
125	A	329	GLN
125	A	415	PHE
125	A	443	LEU
125	A	453	LYS
125	A	458	GLU
125	A	459	GLU
125	A	465	LEU
125	A	484	GLU
125	A	528	LEU
125	A	533	GLU
126	A	15	GLU
126	A	95	LEU
126	A	136	GLN
126	A	145	VAL
126	A	153	ARG
126	A	175	PHE

Model ID	Chain	Residue ID	Residue type
126	A	189	LEU
126	A	208	LEU
126	A	215	LYS
126	A	266	VAL
126	A	292	ARG
126	A	335	TYR
126	A	346	PRO
126	A	397	LYS
126	A	411	LEU
126	A	417	PRO
126	A	428	SER
126	A	482	LEU
126	A	528	LEU
126	A	548	ARG
126	A	552	LEU
126	A	581	THR
127	A	44	VAL
127	A	95	LEU
127	A	189	LEU
127	A	194	GLN
127	A	292	ARG
127	A	384	LEU
127	A	528	LEU

Model ID	Chain	Residue ID	Residue type
127	A	543	LEU
127	A	546	GLN
127	A	549	THR
127	A	552	LEU
128	A	1	MET
128	A	17	THR
128	A	95	LEU
128	A	136	GLN
128	A	189	LEU
128	A	229	PHE
128	A	249	GLN
128	A	251	GLU
128	A	257	GLU
128	A	265	GLN
128	A	292	ARG
128	A	294	GLU
128	A	322	ILE
128	A	343	VAL
128	A	357	HIS
128	A	384	LEU
128	A	482	LEU
129	A	46	LEU
129	A	86	PRO

Model ID	Chain	Residue ID	Residue type
129	A	94	VAL
129	A	95	LEU
129	A	162	GLU
129	A	183	ARG
129	A	189	LEU
129	A	229	PHE
129	A	237	VAL
129	A	249	GLN
129	A	265	GLN
129	A	294	GLU
129	A	298	LEU
129	A	348	GLU
129	A	357	HIS
129	A	379	LEU
129	A	505	MET
130	A	17	THR
130	A	58	LEU
130	A	71	VAL
130	A	92	ILE
130	A	98	THR
130	A	177	ASP
130	A	179	VAL
130	A	190	GLU

Model ID	Chain	Residue ID	Residue type
130	A	233	LYS
130	A	253	LEU
130	A	286	ILE
130	A	316	VAL
130	A	336	GLU
130	A	399	ASN
130	A	405	ASP
130	A	414	ILE
130	A	441	GLN
130	A	450	GLU
130	A	453	LYS
130	A	511	ARG
130	A	552	LEU
131	A	41	VAL
131	A	48	ARG
131	A	99	GLU
131	A	121	LEU
131	A	127	VAL
131	A	134	ILE
131	A	155	LYS
131	A	160	GLU
131	A	174	PHE
131	A	182	LEU

Model ID	Chain	Residue ID	Residue type
131	A	189	LEU
131	A	292	ARG
131	A	337	GLN
131	A	350	LEU
131	A	391	LYS
131	A	418	LEU
131	A	468	LYS
131	A	469	GLU
131	A	482	LEU
131	A	507	HIS
131	A	528	LEU
132	A	14	ILE
132	A	28	LEU
132	A	29	LYS
132	A	32	SER
132	A	41	VAL
132	A	46	LEU
132	A	47	TYR
132	A	126	PHE
132	A	145	VAL
132	A	153	ARG
132	A	183	ARG
132	A	189	LEU

Model ID	Chain	Residue ID	Residue type
132	A	194	GLN
132	A	208	LEU
132	A	254	GLN
132	A	293	LEU
132	A	294	GLU
132	A	336	GLU
132	A	369	ILE
132	A	378	HIS
132	A	382	LYS
132	A	391	LYS
132	A	428	SER
132	A	482	LEU
132	A	494	VAL
132	A	521	GLU
133	A	84	PRO
133	A	147	GLU
133	A	153	ARG
133	A	167	ASP
133	A	177	ASP
133	A	183	ARG
133	A	189	LEU
133	A	194	GLN
133	A	208	LEU

Model ID	Chain	Residue ID	Residue type
133	A	302	ASN
133	A	309	LEU
133	A	334	HIS
133	A	343	VAL
133	A	389	GLU
133	A	391	LYS
133	A	426	ILE
133	A	435	LEU
133	A	475	ILE
133	A	486	GLU
133	A	531	LEU
133	A	552	LEU
133	A	562	LYS
133	A	563	GLU
134	A	13	LEU
134	A	40	VAL
134	A	86	PRO
134	A	104	VAL
134	A	127	VAL
134	A	137	GLN
134	A	139	MET
134	A	146	THR
134	A	160	GLU

Model ID	Chain	Residue ID	Residue type
134	A	161	ASN
134	A	183	ARG
134	A	190	GLU
134	A	218	THR
134	A	229	PHE
134	A	231	PRO
134	A	233	LYS
134	A	238	PHE
134	A	266	VAL
134	A	273	ILE
134	A	283	SER
134	A	317	LEU
134	A	328	VAL
134	A	341	GLN
134	A	343	VAL
134	A	351	GLN
134	A	358	ARG
134	A	372	SER
134	A	379	LEU
134	A	381	GLN
134	A	384	LEU
134	A	391	LYS
134	A	406	ARG

Model ID	Chain	Residue ID	Residue type
134	A	456	GLN
134	A	480	GLN
134	A	482	LEU
135	A	1	MET
135	A	28	LEU
135	A	39	VAL
135	A	51	LYS
135	A	93	LEU
135	A	101	LEU
135	A	104	VAL
135	A	112	ASP
135	A	125	THR
135	A	127	VAL
135	A	166	GLU
135	A	229	PHE
135	A	335	TYR
135	A	354	LEU
135	A	363	GLU
135	A	379	LEU
135	A	391	LYS
135	A	406	ARG
135	A	456	GLN
135	A	508	GLU

Model ID	Chain	Residue ID	Residue type
135	A	528	LEU
135	A	579	LEU
136	A	41	VAL
136	A	120	VAL
136	A	129	ASN
136	A	183	ARG
136	A	184	ASP
136	A	187	LEU
136	A	189	LEU
136	A	194	GLN
136	A	238	PHE
136	A	300	TYR
136	A	350	LEU
136	A	379	LEU
136	A	384	LEU
136	A	472	THR
136	A	507	HIS
136	A	552	LEU
137	A	25	PRO
137	A	36	GLN
137	A	40	VAL
137	A	71	VAL
137	A	114	TRP

Model ID	Chain	Residue ID	Residue type
137	A	127	VAL
137	A	134	ILE
137	A	136	GLN
137	A	182	LEU
137	A	251	GLU
137	A	278	LYS
137	A	291	PRO
137	A	292	ARG
137	A	317	LEU
137	A	344	GLN
137	A	401	GLU
137	A	438	GLN
137	A	446	LYS
137	A	482	LEU
137	A	492	GLU
137	A	498	SER
137	A	524	TYR
137	A	545	GLU
137	A	563	GLU
138	A	10	PRO
138	A	17	THR
138	A	36	GLN
138	A	58	LEU

Model ID	Chain	Residue ID	Residue type
138	A	92	ILE
138	A	101	LEU
138	A	136	GLN
138	A	163	ASN
138	A	189	LEU
138	A	223	ARG
138	A	292	ARG
138	A	317	LEU
138	A	348	GLU
138	A	430	PRO
138	A	482	LEU
138	A	493	ARG
138	A	502	SER
138	A	504	LYS
138	A	540	VAL
138	A	543	LEU
138	A	545	GLU
139	A	4	GLU
139	A	30	ILE
139	A	58	LEU
139	A	136	GLN
139	A	172	VAL
139	A	189	LEU

Model ID	Chain	Residue ID	Residue type
139	A	212	THR
139	A	292	ARG
139	A	317	LEU
139	A	337	GLN
139	A	344	GLN
139	A	348	GLU
139	A	369	ILE
139	A	376	VAL
139	A	379	LEU
139	A	422	VAL
139	A	480	GLN
139	A	482	LEU
139	A	528	LEU
139	A	539	ARG
139	A	543	LEU
139	A	560	LEU
140	A	39	VAL
140	A	54	LEU
140	A	62	LYS
140	A	86	PRO
140	A	183	ARG
140	A	216	ASP
140	A	251	GLU

Model ID	Chain	Residue ID	Residue type
140	A	263	VAL
140	A	281	THR
140	A	289	ASN
140	A	292	ARG
140	A	297	VAL
140	A	345	LEU
140	A	350	LEU
140	A	443	LEU
140	A	542	LEU
140	A	568	GLU
140	A	580	GLN
140	A	583	MET
141	A	4	GLU
141	A	81	TRP
141	A	105	GLU
141	A	111	ASN
141	A	121	LEU
141	A	123	SER
141	A	143	TYR
141	A	153	ARG
141	A	183	ARG
141	A	189	LEU
141	A	205	SER

Model ID	Chain	Residue ID	Residue type
141	A	230	PHE
141	A	251	GLU
141	A	282	LEU
141	A	289	ASN
141	A	292	ARG
141	A	294	GLU
141	A	358	ARG
141	A	368	PHE
141	A	369	ILE
141	A	376	VAL
141	A	381	GLN
141	A	436	PHE
141	A	443	LEU
141	A	482	LEU
141	A	487	LYS
141	A	488	GLU
141	A	490	GLU
141	A	533	GLU
141	A	543	LEU
141	A	550	LEU
141	A	554	LEU
141	A	580	GLN
142	A	5	ILE

Model ID	Chain	Residue ID	Residue type
142	A	10	PRO
142	A	11	MET
142	A	13	LEU
142	A	38	MET
142	A	41	VAL
142	A	44	VAL
142	A	54	LEU
142	A	55	MET
142	A	57	LYS
142	A	58	LEU
142	A	65	PHE
142	A	67	LEU
142	A	78	ILE
142	A	92	ILE
142	A	95	LEU
142	A	105	GLU
142	A	106	LYS
142	A	114	TRP
142	A	121	LEU
142	A	125	THR
142	A	131	ILE
142	A	136	GLN
142	A	137	GLN

Model ID	Chain	Residue ID	Residue type
142	A	139	MET
142	A	151	ARG
142	A	153	ARG
142	A	162	GLU
142	A	166	GLU
142	A	170	ASP
142	A	171	PHE
142	A	175	PHE
142	A	176	PRO
142	A	183	ARG
142	A	187	LEU
142	A	189	LEU
142	A	200	GLU
142	A	207	LYS
142	A	223	ARG
142	A	224	LEU
142	A	226	ILE
142	A	232	LYS
142	A	237	VAL
142	A	240	ARG
142	A	251	GLU
142	A	265	GLN
142	A	266	VAL

Model ID	Chain	Residue ID	Residue type
142	A	273	ILE
142	A	274	PHE
142	A	280	LYS
142	A	282	LEU
142	A	286	ILE
142	A	288	VAL
142	A	292	ARG
142	A	294	GLU
142	A	309	LEU
142	A	317	LEU
142	A	319	LEU
142	A	323	GLU
142	A	329	GLN
142	A	342	LYS
142	A	346	PRO
142	A	350	LEU
142	A	351	GLN
142	A	357	HIS
142	A	360	SER
142	A	374	LYS
142	A	379	LEU
142	A	380	PHE
142	A	383	GLU

Model ID	Chain	Residue ID	Residue type
142	A	384	LEU
142	A	388	LEU
142	A	391	LYS
142	A	392	ARG
142	A	395	PHE
142	A	410	LEU
142	A	411	LEU
142	A	418	LEU
142	A	421	GLU
142	A	422	VAL
142	A	423	LYS
142	A	426	ILE
142	A	429	LYS
142	A	435	LEU
142	A	437	VAL
142	A	441	GLN
142	A	445	LYS
142	A	450	GLU
142	A	453	LYS
142	A	460	ILE
142	A	465	LEU
142	A	478	THR
142	A	485	LYS

Model ID	Chain	Residue ID	Residue type
142	A	491	VAL
142	A	493	ARG
142	A	497	GLU
142	A	506	LEU
142	A	510	GLN
142	A	511	ARG
142	A	513	ASN
142	A	518	GLU
142	A	519	GLN
142	A	522	ARG
142	A	528	LEU
142	A	529	LYS
142	A	534	LYS
142	A	540	VAL
142	A	542	LEU
142	A	550	LEU
142	A	552	LEU
142	A	560	LEU
142	A	570	ARG
142	A	579	LEU
143	A	13	LEU
143	A	21	LEU
143	A	48	ARG

Model ID	Chain	Residue ID	Residue type
143	A	51	LYS
143	A	131	ILE
143	A	141	GLN
143	A	151	ARG
143	A	162	GLU
143	A	189	LEU
143	A	206	LEU
143	A	224	LEU
143	A	263	VAL
143	A	276	ASN
143	A	292	ARG
143	A	323	GLU
143	A	353	LEU
143	A	354	LEU
143	A	391	LYS
143	A	406	ARG
143	A	447	TYR
143	A	506	LEU
143	A	542	LEU
143	A	552	LEU
144	A	13	LEU
144	A	58	LEU
144	A	80	MET

Model ID	Chain	Residue ID	Residue type
144	A	95	LEU
144	A	127	VAL
144	A	152	ILE
144	A	182	LEU
144	A	185	PHE
144	A	189	LEU
144	A	220	ASN
144	A	226	ILE
144	A	228	LYS
144	A	251	GLU
144	A	293	LEU
144	A	330	LYS
144	A	348	GLU
144	A	358	ARG
144	A	380	PHE
144	A	384	LEU
144	A	419	GLU
144	A	451	PRO
144	A	477	GLN
144	A	530	GLN
145	A	20	ARG
145	A	51	LYS
145	A	62	LYS

Model ID	Chain	Residue ID	Residue type
145	A	66	SER
145	A	131	ILE
145	A	146	THR
145	A	179	VAL
145	A	182	LEU
145	A	210	LYS
145	A	233	LYS
145	A	253	LEU
145	A	317	LEU
145	A	343	VAL
145	A	367	VAL
145	A	451	PRO
145	A	468	LYS
145	A	529	LYS
145	A	531	LEU
145	A	542	LEU
145	A	557	GLN
145	A	560	LEU
146	A	3	SER
146	A	30	ILE
146	A	58	LEU
146	A	80	MET
146	A	125	THR

Model ID	Chain	Residue ID	Residue type
146	A	126	PHE
146	A	151	ARG
146	A	165	VAL
146	A	179	VAL
146	A	189	LEU
146	A	215	LYS
146	A	260	PRO
146	A	274	PHE
146	A	289	ASN
146	A	317	LEU
146	A	384	LEU
146	A	391	LYS
146	A	413	VAL
146	A	482	LEU
146	A	484	GLU
146	A	540	VAL
146	A	550	LEU
147	A	13	LEU
147	A	14	ILE
147	A	46	LEU
147	A	61	LYS
147	A	72	GLN
147	A	93	LEU

Model ID	Chain	Residue ID	Residue type
147	A	98	THR
147	A	111	ASN
147	A	129	ASN
147	A	145	VAL
147	A	146	THR
147	A	160	GLU
147	A	189	LEU
147	A	233	LYS
147	A	253	LEU
147	A	294	GLU
147	A	309	LEU
147	A	328	VAL
147	A	353	LEU
147	A	367	VAL
147	A	384	LEU
147	A	391	LYS
147	A	435	LEU
147	A	452	ARG
147	A	482	LEU
147	A	487	LYS
147	A	506	LEU
147	A	512	LYS
147	A	574	ASN

Model ID	Chain	Residue ID	Residue type
148	A	1	MET
148	A	46	LEU
148	A	56	ASN
148	A	61	LYS
148	A	67	LEU
148	A	95	LEU
148	A	111	ASN
148	A	112	ASP
148	A	115	ILE
148	A	127	VAL
148	A	160	GLU
148	A	179	VAL
148	A	233	LYS
148	A	274	PHE
148	A	294	GLU
148	A	317	LEU
148	A	323	GLU
148	A	329	GLN
148	A	337	GLN
148	A	353	LEU
148	A	370	ARG
148	A	384	LEU
148	A	391	LYS

Model ID	Chain	Residue ID	Residue type
148	A	394	ASP
148	A	422	VAL
148	A	482	LEU
148	A	485	LYS
148	A	487	LYS
148	A	489	ILE
148	A	512	LYS
148	A	528	LEU
148	A	531	LEU
148	A	556	GLU
148	A	574	ASN
149	A	53	TYR
149	A	57	LYS
149	A	71	VAL
149	A	114	TRP
149	A	127	VAL
149	A	131	ILE
149	A	153	ARG
149	A	280	LYS
149	A	294	GLU
149	A	298	LEU
149	A	322	ILE
149	A	334	HIS

Model ID	Chain	Residue ID	Residue type
149	A	336	GLU
149	A	382	LYS
149	A	384	LEU
149	A	476	LEU
149	A	509	MET
150	A	40	VAL
150	A	41	VAL
150	A	92	ILE
150	A	114	TRP
150	A	126	PHE
150	A	153	ARG
150	A	179	VAL
150	A	189	LEU
150	A	208	LEU
150	A	253	LEU
150	A	266	VAL
150	A	298	LEU
150	A	304	ILE
150	A	352	GLU
150	A	382	LYS
150	A	384	LEU
150	A	413	VAL
150	A	476	LEU

Model ID	Chain	Residue ID	Residue type
150	A	490	GLU
150	A	506	LEU
150	A	566	GLN
151	A	41	VAL
151	A	51	LYS
151	A	58	LEU
151	A	92	ILE
151	A	131	ILE
151	A	133	THR
151	A	153	ARG
151	A	183	ARG
151	A	208	LEU
151	A	225	CYS
151	A	261	GLU
151	A	274	PHE
151	A	294	GLU
151	A	295	SER
151	A	296	LEU
151	A	322	ILE
151	A	357	HIS
151	A	382	LYS
151	A	392	ARG
151	A	427	TYR

Model ID	Chain	Residue ID	Residue type
151	A	475	ILE
151	A	476	LEU
151	A	488	GLU
151	A	512	LYS
151	A	516	MET
151	A	524	TYR
151	A	540	VAL
151	A	552	LEU
151	A	560	LEU
151	A	569	SER
152	A	13	LEU
152	A	51	LYS
152	A	55	MET
152	A	56	ASN
152	A	67	LEU
152	A	88	LYS
152	A	93	LEU
152	A	153	ARG
152	A	162	GLU
152	A	183	ARG
152	A	184	ASP
152	A	188	ASP
152	A	189	LEU

Model ID	Chain	Residue ID	Residue type
152	A	206	LEU
152	A	208	LEU
152	A	236	PHE
152	A	245	ARG
152	A	257	GLU
152	A	266	VAL
152	A	272	TYR
152	A	286	ILE
152	A	288	VAL
152	A	293	LEU
152	A	294	GLU
152	A	352	GLU
152	A	369	ILE
152	A	468	LYS
152	A	476	LEU
152	A	481	THR
152	A	578	ASP
153	A	1	MET
153	A	5	ILE
153	A	11	MET
153	A	13	LEU
153	A	14	ILE
153	A	34	ILE

Model ID	Chain	Residue ID	Residue type
153	A	41	VAL
153	A	54	LEU
153	A	57	LYS
153	A	58	LEU
153	A	61	LYS
153	A	62	LYS
153	A	71	VAL
153	A	78	ILE
153	A	96	LEU
153	A	99	GLU
153	A	101	LEU
153	A	104	VAL
153	A	110	GLN
153	A	114	TRP
153	A	125	THR
153	A	127	VAL
153	A	131	ILE
153	A	143	TYR
153	A	153	ARG
153	A	162	GLU
153	A	164	GLU
153	A	165	VAL
153	A	168	SER

Model ID	Chain	Residue ID	Residue type
153	A	174	PHE
153	A	183	ARG
153	A	189	LEU
153	A	194	GLN
153	A	202	LEU
153	A	207	LYS
153	A	208	LEU
153	A	216	ASP
153	A	223	ARG
153	A	226	ILE
153	A	230	PHE
153	A	247	LEU
153	A	254	GLN
153	A	255	ASP
153	A	274	PHE
153	A	280	LYS
153	A	281	THR
153	A	282	LEU
153	A	286	ILE
153	A	292	ARG
153	A	297	VAL
153	A	298	LEU
153	A	301	VAL

Model ID	Chain	Residue ID	Residue type
153	A	309	LEU
153	A	317	LEU
153	A	341	GLN
153	A	350	LEU
153	A	351	GLN
153	A	353	LEU
153	A	363	GLU
153	A	368	PHE
153	A	376	VAL
153	A	379	LEU
153	A	380	PHE
153	A	384	LEU
153	A	387	GLN
153	A	388	LEU
153	A	391	LYS
153	A	392	ARG
153	A	404	SER
153	A	406	ARG
153	A	413	VAL
153	A	426	ILE
153	A	427	TYR
153	A	435	LEU
153	A	439	LYS

Model ID	Chain	Residue ID	Residue type
153	A	442	ASP
153	A	453	LYS
153	A	459	GLU
153	A	465	LEU
153	A	471	MET
153	A	480	GLN
153	A	493	ARG
153	A	513	ASN
153	A	516	MET
153	A	528	LEU
153	A	530	GLN
153	A	531	LEU
153	A	540	VAL
153	A	543	LEU
153	A	552	LEU
153	A	554	LEU
153	A	556	GLU
153	A	561	LEU
153	A	567	LYS
153	A	579	LEU
153	A	581	THR
153	A	582	LYS
154	A	6	HIS

Model ID	Chain	Residue ID	Residue type
154	A	40	VAL
154	A	41	VAL
154	A	46	LEU
154	A	52	SER
154	A	70	THR
154	A	80	MET
154	A	127	VAL
154	A	153	ARG
154	A	175	PHE
154	A	186	SER
154	A	233	LYS
154	A	272	TYR
154	A	286	ILE
154	A	304	ILE
154	A	322	ILE
154	A	343	VAL
154	A	367	VAL
154	A	379	LEU
154	A	384	LEU
154	A	406	ARG
154	A	460	ILE
154	A	475	ILE
154	A	482	LEU

Model ID	Chain	Residue ID	Residue type
154	A	494	VAL
154	A	542	LEU
155	A	38	MET
155	A	46	LEU
155	A	55	MET
155	A	58	LEU
155	A	67	LEU
155	A	83	VAL
155	A	112	ASP
155	A	167	ASP
155	A	179	VAL
155	A	200	GLU
155	A	208	LEU
155	A	226	ILE
155	A	229	PHE
155	A	233	LYS
155	A	243	HIS
155	A	249	GLN
155	A	251	GLU
155	A	274	PHE
155	A	286	ILE
155	A	335	TYR
155	A	354	LEU

Model ID	Chain	Residue ID	Residue type
155	A	384	LEU
155	A	393	ASP
155	A	414	ILE
155	A	441	GLN
155	A	443	LEU
155	A	444	LYS
155	A	459	GLU
155	A	475	ILE
155	A	479	ASP
155	A	482	LEU
155	A	528	LEU
155	A	552	LEU
155	A	553	LYS
156	A	40	VAL
156	A	67	LEU
156	A	83	VAL
156	A	122	LEU
156	A	165	VAL
156	A	173	SER
156	A	179	VAL
156	A	180	TRP
156	A	182	LEU
156	A	189	LEU

Model ID	Chain	Residue ID	Residue type
156	A	208	LEU
156	A	250	LEU
156	A	253	LEU
156	A	273	ILE
156	A	332	ILE
156	A	437	VAL
156	A	470	SER
156	A	491	VAL
156	A	574	ASN
157	A	13	LEU
157	A	16	ASN
157	A	46	LEU
157	A	58	LEU
157	A	80	MET
157	A	95	LEU
157	A	106	LYS
157	A	124	SER
157	A	134	ILE
157	A	162	GLU
157	A	165	VAL
157	A	170	ASP
157	A	179	VAL
157	A	187	LEU

Model ID	Chain	Residue ID	Residue type
157	A	189	LEU
157	A	208	LEU
157	A	224	LEU
157	A	233	LYS
157	A	238	PHE
157	A	239	ASP
157	A	274	PHE
157	A	282	LEU
157	A	286	ILE
157	A	292	ARG
157	A	328	VAL
157	A	335	TYR
157	A	341	GLN
157	A	379	LEU
157	A	384	LEU
157	A	443	LEU
157	A	444	LYS
157	A	453	LYS
157	A	515	GLN
157	A	543	LEU
157	A	554	LEU
157	A	572	MET
158	A	7	MET

Model ID	Chain	Residue ID	Residue type
158	A	15	GLU
158	A	36	GLN
158	A	40	VAL
158	A	57	LYS
158	A	58	LEU
158	A	61	LYS
158	A	104	VAL
158	A	134	ILE
158	A	136	GLN
158	A	137	GLN
158	A	153	ARG
158	A	155	LYS
158	A	156	SER
158	A	189	LEU
158	A	217	GLU
158	A	231	PRO
158	A	234	LYS
158	A	253	LEU
158	A	256	GLU
158	A	292	ARG
158	A	317	LEU
158	A	332	ILE
158	A	352	GLU

Model ID	Chain	Residue ID	Residue type
158	A	362	ARG
158	A	441	GLN
158	A	471	MET
158	A	482	LEU
158	A	493	ARG
158	A	504	LYS
158	A	543	LEU
158	A	553	LYS
159	A	5	ILE
159	A	6	HIS
159	A	14	ILE
159	A	18	ASN
159	A	36	GLN
159	A	41	VAL
159	A	56	ASN
159	A	57	LYS
159	A	70	THR
159	A	78	ILE
159	A	94	VAL
159	A	134	ILE
159	A	167	ASP
159	A	175	PHE
159	A	189	LEU

Model ID	Chain	Residue ID	Residue type
159	A	233	LYS
159	A	239	ASP
159	A	294	GLU
159	A	317	LEU
159	A	330	LYS
159	A	380	PHE
159	A	384	LEU
159	A	427	TYR
159	A	434	ARG
159	A	478	THR
159	A	487	LYS
159	A	510	GLN
159	A	528	LEU
159	A	531	LEU
159	A	542	LEU
159	A	546	GLN
159	A	560	LEU
159	A	566	GLN
160	A	4	GLU
160	A	18	ASN
160	A	31	LEU
160	A	57	LYS
160	A	104	VAL

Model ID	Chain	Residue ID	Residue type
160	A	133	THR
160	A	136	GLN
160	A	147	GLU
160	A	165	VAL
160	A	182	LEU
160	A	189	LEU
160	A	201	TYR
160	A	253	LEU
160	A	256	GLU
160	A	292	ARG
160	A	294	GLU
160	A	328	VAL
160	A	379	LEU
160	A	444	LYS
160	A	456	GLN
160	A	463	THR
160	A	475	ILE
160	A	482	LEU
160	A	493	ARG
160	A	504	LYS
160	A	506	LEU
160	A	553	LYS
160	A	563	GLU

Model ID	Chain	Residue ID	Residue type
160	A	570	ARG
161	A	13	LEU
161	A	56	ASN
161	A	75	THR
161	A	94	VAL
161	A	109	ASN
161	A	143	TYR
161	A	183	ARG
161	A	208	LEU
161	A	233	LYS
161	A	288	VAL
161	A	293	LEU
161	A	294	GLU
161	A	367	VAL
161	A	509	MET
161	A	516	MET
161	A	528	LEU
161	A	550	LEU
162	A	7	MET
162	A	13	LEU
162	A	41	VAL
162	A	48	ARG
162	A	58	LEU

Model ID	Chain	Residue ID	Residue type
162	A	95	LEU
162	A	108	ASP
162	A	109	ASN
162	A	129	ASN
162	A	141	GLN
162	A	144	TYR
162	A	147	GLU
162	A	165	VAL
162	A	189	LEU
162	A	194	GLN
162	A	237	VAL
162	A	275	SER
162	A	280	LYS
162	A	293	LEU
162	A	294	GLU
162	A	296	LEU
162	A	330	LYS
162	A	351	GLN
162	A	358	ARG
162	A	388	LEU
162	A	416	SER
162	A	418	LEU
162	A	437	VAL

Model ID	Chain	Residue ID	Residue type
162	A	449	GLU
162	A	469	GLU
162	A	487	LYS
162	A	494	VAL
162	A	552	LEU
162	A	575	GLU
162	A	576	ILE
163	A	39	VAL
163	A	81	TRP
163	A	141	GLN
163	A	165	VAL
163	A	178	PHE
163	A	179	VAL
163	A	183	ARG
163	A	206	LEU
163	A	249	GLN
163	A	281	THR
163	A	292	ARG
163	A	293	LEU
163	A	332	ILE
163	A	384	LEU
163	A	418	LEU
163	A	460	ILE

Model ID	Chain	Residue ID	Residue type
163	A	528	LEU
163	A	560	LEU
164	A	10	PRO
164	A	26	GLU
164	A	48	ARG
164	A	55	MET
164	A	84	PRO
164	A	88	LYS
164	A	92	ILE
164	A	121	LEU
164	A	127	VAL
164	A	136	GLN
164	A	147	GLU
164	A	153	ARG
164	A	165	VAL
164	A	177	ASP
164	A	189	LEU
164	A	206	LEU
164	A	226	ILE
164	A	234	LYS
164	A	274	PHE
164	A	319	LEU
164	A	321	GLN

Model ID	Chain	Residue ID	Residue type
164	A	328	VAL
164	A	362	ARG
164	A	384	LEU
164	A	407	CYS
164	A	422	VAL
164	A	434	ARG
164	A	447	TYR
164	A	575	GLU
165	A	13	LEU
165	A	15	GLU
165	A	30	ILE
165	A	41	VAL
165	A	46	LEU
165	A	51	LYS
165	A	54	LEU
165	A	56	ASN
165	A	57	LYS
165	A	61	LYS
165	A	78	ILE
165	A	81	TRP
165	A	88	LYS
165	A	89	PRO
165	A	101	LEU

Model ID	Chain	Residue ID	Residue type
165	A	104	VAL
165	A	114	TRP
165	A	115	ILE
165	A	120	VAL
165	A	121	LEU
165	A	125	THR
165	A	134	ILE
165	A	136	GLN
165	A	145	VAL
165	A	153	ARG
165	A	155	LYS
165	A	166	GLU
165	A	167	ASP
165	A	172	VAL
165	A	175	PHE
165	A	183	ARG
165	A	187	LEU
165	A	189	LEU
165	A	194	GLN
165	A	202	LEU
165	A	209	LYS
165	A	223	ARG
165	A	226	ILE

Model ID	Chain	Residue ID	Residue type
165	A	230	PHE
165	A	231	PRO
165	A	236	PHE
165	A	237	VAL
165	A	240	ARG
165	A	246	LYS
165	A	249	GLN
165	A	274	PHE
165	A	282	LEU
165	A	288	VAL
165	A	292	ARG
165	A	293	LEU
165	A	294	GLU
165	A	298	LEU
165	A	309	LEU
165	A	312	MET
165	A	313	GLU
165	A	314	ASN
165	A	317	LEU
165	A	332	ILE
165	A	337	GLN
165	A	342	LYS
165	A	350	LEU

Model ID	Chain	Residue ID	Residue type
165	A	354	LEU
165	A	357	HIS
165	A	359	ASP
165	A	360	SER
165	A	365	ILE
165	A	370	ARG
165	A	379	LEU
165	A	380	PHE
165	A	399	ASN
165	A	406	ARG
165	A	413	VAL
165	A	422	VAL
165	A	434	ARG
165	A	435	LEU
165	A	437	VAL
165	A	439	LYS
165	A	449	GLU
165	A	450	GLU
165	A	452	ARG
165	A	461	LEU
165	A	465	LEU
165	A	466	LYS
165	A	475	ILE

Model ID	Chain	Residue ID	Residue type
165	A	482	LEU
165	A	485	LYS
165	A	491	VAL
165	A	492	GLU
165	A	493	ARG
165	A	504	LYS
165	A	511	ARG
165	A	515	GLN
165	A	518	GLU
165	A	519	GLN
165	A	522	ARG
165	A	524	TYR
165	A	526	GLU
165	A	527	HIS
165	A	528	LEU
165	A	530	GLN
165	A	542	LEU
165	A	547	GLU
165	A	554	LEU
165	A	556	GLU
165	A	558	GLU
165	A	566	GLN
165	A	573	LYS

Model ID	Chain	Residue ID	Residue type
165	A	583	MET
166	A	13	LEU
166	A	14	ILE
166	A	40	VAL
166	A	79	TRP
166	A	95	LEU
166	A	141	GLN
166	A	166	GLU
166	A	183	ARG
166	A	208	LEU
166	A	244	ARG
166	A	255	ASP
166	A	271	SER
166	A	367	VAL
166	A	384	LEU
166	A	396	CYS
166	A	465	LEU
166	A	482	LEU
166	A	543	LEU
166	A	560	LEU
166	A	561	LEU
166	A	572	MET
167	A	5	ILE

Model ID	Chain	Residue ID	Residue type
167	A	7	MET
167	A	13	LEU
167	A	26	GLU
167	A	29	LYS
167	A	40	VAL
167	A	44	VAL
167	A	55	MET
167	A	56	ASN
167	A	58	LEU
167	A	61	LYS
167	A	63	LYS
167	A	74	HIS
167	A	78	ILE
167	A	82	CYS
167	A	87	LYS
167	A	88	LYS
167	A	104	VAL
167	A	109	ASN
167	A	111	ASN
167	A	114	TRP
167	A	121	LEU
167	A	126	PHE
167	A	128	TYR

Model ID	Chain	Residue ID	Residue type
167	A	131	ILE
167	A	145	VAL
167	A	151	ARG
167	A	153	ARG
167	A	155	LYS
167	A	166	GLU
167	A	171	PHE
167	A	175	PHE
167	A	189	LEU
167	A	206	LEU
167	A	208	LEU
167	A	220	ASN
167	A	233	LYS
167	A	239	ASP
167	A	252	LYS
167	A	273	ILE
167	A	274	PHE
167	A	277	SER
167	A	278	LYS
167	A	294	GLU
167	A	295	SER
167	A	297	VAL
167	A	298	LEU

Model ID	Chain	Residue ID	Residue type
167	A	308	ASP
167	A	317	LEU
167	A	319	LEU
167	A	328	VAL
167	A	329	GLN
167	A	334	HIS
167	A	342	LYS
167	A	350	LEU
167	A	353	LEU
167	A	356	LEU
167	A	366	GLU
167	A	373	PHE
167	A	374	LYS
167	A	376	VAL
167	A	379	LEU
167	A	382	LYS
167	A	384	LEU
167	A	391	LYS
167	A	394	ASP
167	A	397	LYS
167	A	398	GLN
167	A	411	LEU
167	A	412	GLN

Model ID	Chain	Residue ID	Residue type
167	A	413	VAL
167	A	420	GLU
167	A	421	GLU
167	A	423	LYS
167	A	427	TYR
167	A	434	ARG
167	A	445	LYS
167	A	450	GLU
167	A	453	LYS
167	A	458	GLU
167	A	465	LEU
167	A	475	ILE
167	A	483	THR
167	A	495	LYS
167	A	506	LEU
167	A	526	GLU
167	A	528	LEU
167	A	531	LEU
167	A	534	LYS
167	A	537	ASN
167	A	542	LEU
167	A	543	LEU
167	A	548	ARG

Model ID	Chain	Residue ID	Residue type
167	A	549	THR
167	A	554	LEU
167	A	559	GLN
167	A	560	LEU
167	A	576	ILE
167	A	579	LEU
167	A	581	THR
168	A	7	MET
168	A	11	MET
168	A	13	LEU
168	A	40	VAL
168	A	46	LEU
168	A	54	LEU
168	A	55	MET
168	A	57	LYS
168	A	58	LEU
168	A	67	LEU
168	A	74	HIS
168	A	78	ILE
168	A	92	ILE
168	A	101	LEU
168	A	114	TRP
168	A	139	MET

Model ID	Chain	Residue ID	Residue type
168	A	143	TYR
168	A	175	PHE
168	A	180	TRP
168	A	183	ARG
168	A	187	LEU
168	A	208	LEU
168	A	214	GLN
168	A	220	ASN
168	A	223	ARG
168	A	225	CYS
168	A	226	ILE
168	A	231	PRO
168	A	232	LYS
168	A	237	VAL
168	A	245	ARG
168	A	253	LEU
168	A	266	VAL
168	A	274	PHE
168	A	278	LYS
168	A	289	ASN
168	A	292	ARG
168	A	296	LEU
168	A	309	LEU

Model ID	Chain	Residue ID	Residue type
168	A	311	CYS
168	A	312	MET
168	A	313	GLU
168	A	316	VAL
168	A	317	LEU
168	A	328	VAL
168	A	330	LYS
168	A	339	MET
168	A	342	LYS
168	A	350	LEU
168	A	352	GLU
168	A	354	LEU
168	A	361	GLU
168	A	363	GLU
168	A	367	VAL
168	A	382	LYS
168	A	384	LEU
168	A	387	GLN
168	A	388	LEU
168	A	391	LYS
168	A	400	GLN
168	A	406	ARG
168	A	418	LEU

Model ID	Chain	Residue ID	Residue type
168	A	419	GLU
168	A	421	GLU
168	A	435	LEU
168	A	445	LYS
168	A	448	TYR
168	A	453	LYS
168	A	458	GLU
168	A	461	LEU
168	A	462	GLN
168	A	477	GLN
168	A	482	LEU
168	A	491	VAL
168	A	492	GLU
168	A	505	MET
168	A	511	ARG
168	A	522	ARG
168	A	528	LEU
168	A	530	GLN
168	A	531	LEU
168	A	536	GLU
168	A	543	LEU
168	A	550	LEU
168	A	552	LEU

Model ID	Chain	Residue ID	Residue type
168	A	553	LYS
168	A	554	LEU
168	A	576	ILE
168	A	579	LEU
169	A	13	LEU
169	A	55	MET
169	A	57	LYS
169	A	72	GLN
169	A	92	ILE
169	A	109	ASN
169	A	127	VAL
169	A	153	ARG
169	A	165	VAL
169	A	167	ASP
169	A	172	VAL
169	A	182	LEU
169	A	183	ARG
169	A	286	ILE
169	A	293	LEU
169	A	335	TYR
169	A	378	HIS
169	A	453	LYS
169	A	482	LEU

Model ID	Chain	Residue ID	Residue type
169	A	497	GLU
169	A	521	GLU
169	A	528	LEU
169	A	552	LEU
170	A	38	MET
170	A	81	TRP
170	A	124	SER
170	A	127	VAL
170	A	129	ASN
170	A	144	TYR
170	A	160	GLU
170	A	189	LEU
170	A	192	ASP
170	A	202	LEU
170	A	243	HIS
170	A	245	ARG
170	A	282	LEU
170	A	377	ASP
170	A	443	LEU
170	A	455	ILE
170	A	472	THR
170	A	540	VAL
170	A	552	LEU

Model ID	Chain	Residue ID	Residue type
170	A	560	LEU
171	A	28	LEU
171	A	56	ASN
171	A	75	THR
171	A	80	MET
171	A	125	THR
171	A	134	ILE
171	A	148	LEU
171	A	176	PRO
171	A	182	LEU
171	A	255	ASP
171	A	266	VAL
171	A	293	LEU
171	A	346	PRO
171	A	358	ARG
171	A	373	PHE
171	A	427	TYR
171	A	472	THR
171	A	506	LEU
171	A	550	LEU
171	A	552	LEU
171	A	579	LEU
171	A	581	THR

Model ID	Chain	Residue ID	Residue type
172	A	126	PHE
172	A	153	ARG
172	A	165	VAL
172	A	183	ARG
172	A	194	GLN
172	A	206	LEU
172	A	291	PRO
172	A	293	LEU
172	A	378	HIS
172	A	435	LEU
172	A	483	THR
172	A	486	GLU
172	A	506	LEU
172	A	527	HIS
172	A	531	LEU
172	A	547	GLU
172	A	582	LYS
173	A	76	LYS
173	A	99	GLU
173	A	120	VAL
173	A	127	VAL
173	A	182	LEU
173	A	237	VAL

Model ID	Chain	Residue ID	Residue type
173	A	270	CYS
173	A	286	ILE
173	A	298	LEU
173	A	322	ILE
173	A	332	ILE
173	A	356	LEU
173	A	376	VAL
173	A	381	GLN
173	A	392	ARG
173	A	413	VAL
173	A	427	TYR
173	A	435	LEU
173	A	506	LEU
173	A	531	LEU
173	A	538	ASP
173	A	542	LEU
173	A	552	LEU
173	A	560	LEU
174	A	40	VAL
174	A	56	ASN
174	A	67	LEU
174	A	80	MET
174	A	131	ILE

Model ID	Chain	Residue ID	Residue type
174	A	135	ASN
174	A	147	GLU
174	A	183	ARG
174	A	189	LEU
174	A	198	PRO
174	A	202	LEU
174	A	220	ASN
174	A	242	VAL
174	A	293	LEU
174	A	317	LEU
174	A	328	VAL
174	A	353	LEU
174	A	365	ILE
174	A	374	LYS
174	A	380	PHE
174	A	459	GLU
174	A	465	LEU
174	A	469	GLU
174	A	484	GLU
174	A	497	GLU
174	A	512	LYS
174	A	552	LEU
174	A	576	ILE

Model ID	Chain	Residue ID	Residue type
175	A	4	GLU
175	A	32	SER
175	A	34	ILE
175	A	39	VAL
175	A	56	ASN
175	A	95	LEU
175	A	105	GLU
175	A	108	ASP
175	A	114	TRP
175	A	127	VAL
175	A	131	ILE
175	A	147	GLU
175	A	182	LEU
175	A	183	ARG
175	A	189	LEU
175	A	224	LEU
175	A	249	GLN
175	A	297	VAL
175	A	317	LEU
175	A	338	GLN
175	A	345	LEU
175	A	374	LYS
175	A	384	LEU

Model ID	Chain	Residue ID	Residue type
175	A	407	CYS
175	A	422	VAL
175	A	443	LEU
175	A	453	LYS
175	A	459	GLU
175	A	465	LEU
175	A	512	LYS
175	A	563	GLU
176	A	4	GLU
176	A	13	LEU
176	A	14	ILE
176	A	20	ARG
176	A	40	VAL
176	A	41	VAL
176	A	44	VAL
176	A	46	LEU
176	A	51	LYS
176	A	55	MET
176	A	61	LYS
176	A	62	LYS
176	A	63	LYS
176	A	67	LEU
176	A	71	VAL

Model ID	Chain	Residue ID	Residue type
176	A	74	HIS
176	A	75	THR
176	A	78	ILE
176	A	81	TRP
176	A	101	LEU
176	A	114	TRP
176	A	120	VAL
176	A	130	SER
176	A	133	THR
176	A	139	MET
176	A	141	GLN
176	A	143	TYR
176	A	149	THR
176	A	155	LYS
176	A	163	ASN
176	A	165	VAL
176	A	174	PHE
176	A	187	LEU
176	A	189	LEU
176	A	194	GLN
176	A	200	GLU
176	A	201	TYR
176	A	202	LEU

Model ID	Chain	Residue ID	Residue type
176	A	223	ARG
176	A	228	LYS
176	A	229	PHE
176	A	233	LYS
176	A	240	ARG
176	A	251	GLU
176	A	254	GLN
176	A	263	VAL
176	A	286	ILE
176	A	298	LEU
176	A	309	LEU
176	A	316	VAL
176	A	317	LEU
176	A	319	LEU
176	A	321	GLN
176	A	336	GLU
176	A	348	GLU
176	A	350	LEU
176	A	356	LEU
176	A	365	ILE
176	A	379	LEU
176	A	381	GLN
176	A	384	LEU

Model ID	Chain	Residue ID	Residue type
176	A	387	GLN
176	A	388	LEU
176	A	397	LYS
176	A	406	ARG
176	A	413	VAL
176	A	418	LEU
176	A	429	LYS
176	A	438	GLN
176	A	448	TYR
176	A	452	ARG
176	A	459	GLU
176	A	460	ILE
176	A	465	LEU
176	A	480	GLN
176	A	506	LEU
176	A	507	HIS
176	A	515	GLN
176	A	517	MET
176	A	528	LEU
176	A	531	LEU
176	A	534	LYS
176	A	539	ARG
176	A	541	GLN

Model ID	Chain	Residue ID	Residue type
176	A	542	LEU
176	A	544	LYS
176	A	553	LYS
176	A	554	LEU
176	A	558	GLU
176	A	559	GLN
176	A	560	LEU
176	A	562	LYS
176	A	567	LYS
176	A	575	GLU
176	A	577	GLN
176	A	581	THR
176	A	582	LYS
177	A	1	MET
177	A	13	LEU
177	A	14	ILE
177	A	21	LEU
177	A	28	LEU
177	A	29	LYS
177	A	34	ILE
177	A	40	VAL
177	A	41	VAL
177	A	44	VAL

Model ID	Chain	Residue ID	Residue type
177	A	46	LEU
177	A	54	LEU
177	A	55	MET
177	A	61	LYS
177	A	63	LYS
177	A	71	VAL
177	A	72	GLN
177	A	78	ILE
177	A	93	LEU
177	A	106	LYS
177	A	114	TRP
177	A	115	ILE
177	A	124	SER
177	A	134	ILE
177	A	155	LYS
177	A	161	ASN
177	A	166	GLU
177	A	168	SER
177	A	171	PHE
177	A	174	PHE
177	A	175	PHE
177	A	187	LEU
177	A	199	ASP

Model ID	Chain	Residue ID	Residue type
177	A	200	GLU
177	A	219	PHE
177	A	223	ARG
177	A	224	LEU
177	A	226	ILE
177	A	240	ARG
177	A	244	ARG
177	A	247	LEU
177	A	265	GLN
177	A	274	PHE
177	A	280	LYS
177	A	282	LEU
177	A	289	ASN
177	A	292	ARG
177	A	294	GLU
177	A	298	LEU
177	A	308	ASP
177	A	321	GLN
177	A	330	LYS
177	A	350	LEU
177	A	356	LEU
177	A	367	VAL
177	A	376	VAL

Model ID	Chain	Residue ID	Residue type
177	A	379	LEU
177	A	382	LYS
177	A	387	GLN
177	A	392	ARG
177	A	399	ASN
177	A	401	GLU
177	A	421	GLU
177	A	426	ILE
177	A	429	LYS
177	A	439	LYS
177	A	448	TYR
177	A	455	ILE
177	A	459	GLU
177	A	465	LEU
177	A	466	LYS
177	A	480	GLN
177	A	482	LEU
177	A	484	GLU
177	A	495	LYS
177	A	500	GLN
177	A	505	MET
177	A	507	HIS
177	A	508	GLU

Model ID	Chain	Residue ID	Residue type
177	A	516	MET
177	A	524	TYR
177	A	528	LEU
177	A	531	LEU
177	A	534	LYS
177	A	535	MET
177	A	547	GLU
177	A	550	LEU
177	A	555	GLN
177	A	558	GLU
177	A	561	LEU
177	A	575	GLU
177	A	579	LEU
177	A	580	GLN
177	A	583	MET
178	A	40	VAL
178	A	67	LEU
178	A	71	VAL
178	A	80	MET
178	A	104	VAL
178	A	110	GLN
178	A	124	SER
178	A	131	ILE

Model ID	Chain	Residue ID	Residue type
178	A	183	ARG
178	A	231	PRO
178	A	253	LEU
178	A	273	ILE
178	A	294	GLU
178	A	298	LEU
178	A	301	VAL
178	A	308	ASP
178	A	328	VAL
178	A	367	VAL
178	A	379	LEU
178	A	552	LEU
179	A	13	LEU
179	A	38	MET
179	A	51	LYS
179	A	95	LEU
179	A	106	LYS
179	A	109	ASN
179	A	127	VAL
179	A	149	THR
179	A	152	ILE
179	A	181	THR
179	A	189	LEU

Model ID	Chain	Residue ID	Residue type
179	A	292	ARG
179	A	343	VAL
179	A	379	LEU
179	A	384	LEU
179	A	418	LEU
179	A	458	GLU
179	A	560	LEU
180	A	6	HIS
180	A	74	HIS
180	A	76	LYS
180	A	96	LEU
180	A	129	ASN
180	A	165	VAL
180	A	189	LEU
180	A	244	ARG
180	A	253	LEU
180	A	256	GLU
180	A	294	GLU
180	A	301	VAL
180	A	411	LEU
180	A	412	GLN
180	A	438	GLN
180	A	443	LEU

Model ID	Chain	Residue ID	Residue type
180	A	446	LYS
180	A	452	ARG
180	A	482	LEU
180	A	490	GLU
180	A	511	ARG
180	A	522	ARG
180	A	528	LEU
180	A	556	GLU
180	A	561	LEU
181	A	4	GLU
181	A	5	ILE
181	A	13	LEU
181	A	14	ILE
181	A	16	ASN
181	A	34	ILE
181	A	39	VAL
181	A	40	VAL
181	A	46	LEU
181	A	49	THR
181	A	55	MET
181	A	58	LEU
181	A	61	LYS
181	A	62	LYS

Model ID	Chain	Residue ID	Residue type
181	A	63	LYS
181	A	67	LEU
181	A	71	VAL
181	A	72	GLN
181	A	78	ILE
181	A	80	MET
181	A	87	LYS
181	A	91	HIS
181	A	95	LEU
181	A	99	GLU
181	A	109	ASN
181	A	114	TRP
181	A	116	PHE
181	A	122	LEU
181	A	136	GLN
181	A	141	GLN
181	A	143	TYR
181	A	145	VAL
181	A	166	GLU
181	A	171	PHE
181	A	175	PHE
181	A	180	TRP
181	A	190	GLU

Model ID	Chain	Residue ID	Residue type
181	A	206	LEU
181	A	208	LEU
181	A	209	LYS
181	A	217	GLU
181	A	220	ASN
181	A	223	ARG
181	A	233	LYS
181	A	237	VAL
181	A	247	LEU
181	A	250	LEU
181	A	251	GLU
181	A	252	LYS
181	A	253	LEU
181	A	265	GLN
181	A	273	ILE
181	A	274	PHE
181	A	278	LYS
181	A	286	ILE
181	A	289	ASN
181	A	293	LEU
181	A	294	GLU
181	A	297	VAL
181	A	301	VAL

Model ID	Chain	Residue ID	Residue type
181	A	308	ASP
181	A	328	VAL
181	A	330	LYS
181	A	344	GLN
181	A	350	LEU
181	A	353	LEU
181	A	356	LEU
181	A	362	ARG
181	A	366	GLU
181	A	370	ARG
181	A	378	HIS
181	A	379	LEU
181	A	384	LEU
181	A	388	LEU
181	A	392	ARG
181	A	399	ASN
181	A	401	GLU
181	A	407	CYS
181	A	413	VAL
181	A	414	ILE
181	A	426	ILE
181	A	427	TYR
181	A	435	LEU

Model ID	Chain	Residue ID	Residue type
181	A	439	LYS
181	A	444	LYS
181	A	448	TYR
181	A	450	GLU
181	A	452	ARG
181	A	453	LYS
181	A	462	GLN
181	A	466	LYS
181	A	475	ILE
181	A	483	THR
181	A	492	GLU
181	A	500	GLN
181	A	504	LYS
181	A	511	ARG
181	A	512	LYS
181	A	515	GLN
181	A	520	LYS
181	A	522	ARG
181	A	528	LEU
181	A	529	LYS
181	A	531	LEU
181	A	540	VAL
181	A	543	LEU

Model ID	Chain	Residue ID	Residue type
181	A	554	LEU
181	A	556	GLU
181	A	557	GLN
181	A	560	LEU
181	A	561	LEU
181	A	579	LEU
181	A	582	LYS
182	A	5	ILE
182	A	13	LEU
182	A	14	ILE
182	A	28	LEU
182	A	34	ILE
182	A	39	VAL
182	A	40	VAL
182	A	41	VAL
182	A	54	LEU
182	A	55	MET
182	A	56	ASN
182	A	58	LEU
182	A	62	LYS
182	A	67	LEU
182	A	71	VAL
182	A	72	GLN

Model ID	Chain	Residue ID	Residue type
182	A	78	ILE
182	A	81	TRP
182	A	88	LYS
182	A	95	LEU
182	A	98	THR
182	A	99	GLU
182	A	106	LYS
182	A	110	GLN
182	A	114	TRP
182	A	120	VAL
182	A	127	VAL
182	A	129	ASN
182	A	131	ILE
182	A	134	ILE
182	A	147	GLU
182	A	165	VAL
182	A	166	GLU
182	A	177	ASP
182	A	183	ARG
182	A	187	LEU
182	A	189	LEU
182	A	201	TYR
182	A	206	LEU

Model ID	Chain	Residue ID	Residue type
182	A	208	LEU
182	A	216	ASP
182	A	220	ASN
182	A	225	CYS
182	A	229	PHE
182	A	233	LYS
182	A	243	HIS
182	A	258	LEU
182	A	265	GLN
182	A	273	ILE
182	A	274	PHE
182	A	278	LYS
182	A	280	LYS
182	A	286	ILE
182	A	289	ASN
182	A	293	LEU
182	A	294	GLU
182	A	309	LEU
182	A	317	LEU
182	A	319	LEU
182	A	322	ILE
182	A	329	GLN
182	A	330	LYS

Model ID	Chain	Residue ID	Residue type
182	A	344	GLN
182	A	350	LEU
182	A	353	LEU
182	A	356	LEU
182	A	379	LEU
182	A	387	GLN
182	A	388	LEU
182	A	391	LYS
182	A	406	ARG
182	A	410	LEU
182	A	420	GLU
182	A	426	ILE
182	A	427	TYR
182	A	429	LYS
182	A	439	LYS
182	A	440	LEU
182	A	441	GLN
182	A	443	LEU
182	A	444	LYS
182	A	450	GLU
182	A	453	LYS
182	A	464	TYR
182	A	465	LEU

Model ID	Chain	Residue ID	Residue type
182	A	475	ILE
182	A	482	LEU
182	A	487	LYS
182	A	490	GLU
182	A	512	LYS
182	A	516	MET
182	A	517	MET
182	A	521	GLU
182	A	528	LEU
182	A	530	GLN
182	A	531	LEU
182	A	536	GLU
182	A	544	LYS
182	A	552	LEU
182	A	554	LEU
182	A	556	GLU
182	A	563	GLU
182	A	567	LYS
182	A	582	LYS
183	A	1	MET
183	A	5	ILE
183	A	6	HIS
183	A	13	LEU

Model ID	Chain	Residue ID	Residue type
183	A	14	ILE
183	A	17	THR
183	A	29	LYS
183	A	34	ILE
183	A	40	VAL
183	A	43	ILE
183	A	44	VAL
183	A	49	THR
183	A	51	LYS
183	A	55	MET
183	A	56	ASN
183	A	57	LYS
183	A	61	LYS
183	A	75	THR
183	A	78	ILE
183	A	83	VAL
183	A	95	LEU
183	A	114	TRP
183	A	122	LEU
183	A	124	SER
183	A	125	THR
183	A	128	TYR
183	A	129	ASN

Model ID	Chain	Residue ID	Residue type
183	A	134	ILE
183	A	143	TYR
183	A	149	THR
183	A	155	LYS
183	A	160	GLU
183	A	165	VAL
183	A	171	PHE
183	A	180	TRP
183	A	183	ARG
183	A	200	GLU
183	A	208	LEU
183	A	215	LYS
183	A	220	ASN
183	A	226	ILE
183	A	227	ARG
183	A	233	LYS
183	A	237	VAL
183	A	253	LEU
183	A	258	LEU
183	A	265	GLN
183	A	274	PHE
183	A	276	ASN
183	A	280	LYS

Model ID	Chain	Residue ID	Residue type
183	A	282	LEU
183	A	294	GLU
183	A	297	VAL
183	A	298	LEU
183	A	316	VAL
183	A	317	LEU
183	A	319	LEU
183	A	322	ILE
183	A	324	ASN
183	A	329	GLN
183	A	334	HIS
183	A	337	GLN
183	A	341	GLN
183	A	344	GLN
183	A	353	LEU
183	A	358	ARG
183	A	359	ASP
183	A	361	GLU
183	A	366	GLU
183	A	367	VAL
183	A	372	SER
183	A	374	LYS
183	A	376	VAL

Model ID	Chain	Residue ID	Residue type
183	A	379	LEU
183	A	380	PHE
183	A	381	GLN
183	A	389	GLU
183	A	390	LYS
183	A	393	ASP
183	A	398	GLN
183	A	410	LEU
183	A	411	LEU
183	A	418	LEU
183	A	420	GLU
183	A	421	GLU
183	A	422	VAL
183	A	423	LYS
183	A	426	ILE
183	A	427	TYR
183	A	429	LYS
183	A	435	LEU
183	A	437	VAL
183	A	439	LYS
183	A	450	GLU
183	A	453	LYS
183	A	455	ILE

Model ID	Chain	Residue ID	Residue type
183	A	460	ILE
183	A	464	TYR
183	A	465	LEU
183	A	473	ASP
183	A	476	LEU
183	A	478	THR
183	A	479	ASP
183	A	480	GLN
183	A	484	GLU
183	A	505	MET
183	A	508	GLU
183	A	518	GLU
183	A	520	LYS
183	A	528	LEU
183	A	530	GLN
183	A	550	LEU
183	A	554	LEU
183	A	556	GLU
183	A	558	GLU
183	A	561	LEU
183	A	562	LYS
183	A	565	PHE
183	A	567	LYS

Model ID	Chain	Residue ID	Residue type
183	A	570	ARG
183	A	573	LYS
183	A	582	LYS
183	A	583	MET
184	A	10	PRO
184	A	13	LEU
184	A	35	THR
184	A	36	GLN
184	A	39	VAL
184	A	40	VAL
184	A	41	VAL
184	A	48	ARG
184	A	49	THR
184	A	57	LYS
184	A	58	LEU
184	A	67	LEU
184	A	74	HIS
184	A	75	THR
184	A	78	ILE
184	A	83	VAL
184	A	95	LEU
184	A	99	GLU
184	A	101	LEU

Model ID	Chain	Residue ID	Residue type
184	A	114	TRP
184	A	115	ILE
184	A	120	VAL
184	A	122	LEU
184	A	125	THR
184	A	127	VAL
184	A	134	ILE
184	A	141	GLN
184	A	143	TYR
184	A	150	HIS
184	A	155	LYS
184	A	165	VAL
184	A	172	VAL
184	A	175	PHE
184	A	177	ASP
184	A	202	LEU
184	A	207	LYS
184	A	210	LYS
184	A	217	GLU
184	A	220	ASN
184	A	223	ARG
184	A	232	LYS
184	A	237	VAL

Model ID	Chain	Residue ID	Residue type
184	A	255	ASP
184	A	265	GLN
184	A	274	PHE
184	A	280	LYS
184	A	294	GLU
184	A	297	VAL
184	A	298	LEU
184	A	309	LEU
184	A	321	GLN
184	A	322	ILE
184	A	330	LYS
184	A	332	ILE
184	A	342	LYS
184	A	353	LEU
184	A	354	LEU
184	A	356	LEU
184	A	357	HIS
184	A	358	ARG
184	A	363	GLU
184	A	365	ILE
184	A	369	ILE
184	A	388	LEU
184	A	397	LYS

Model ID	Chain	Residue ID	Residue type
184	A	399	ASN
184	A	401	GLU
184	A	410	LEU
184	A	418	LEU
184	A	421	GLU
184	A	426	ILE
184	A	429	LYS
184	A	440	LEU
184	A	456	GLN
184	A	465	LEU
184	A	478	THR
184	A	482	LEU
184	A	487	LYS
184	A	514	GLU
184	A	516	MET
184	A	527	HIS
184	A	528	LEU
184	A	540	VAL
184	A	544	LYS
184	A	547	GLU
184	A	552	LEU
184	A	553	LYS
184	A	559	GLN

Model ID	Chain	Residue ID	Residue type
184	A	565	PHE
184	A	566	GLN
184	A	573	LYS
184	A	579	LEU
185	A	13	LEU
185	A	28	LEU
185	A	34	ILE
185	A	40	VAL
185	A	41	VAL
185	A	44	VAL
185	A	46	LEU
185	A	58	LEU
185	A	63	LYS
185	A	65	PHE
185	A	74	HIS
185	A	78	ILE
185	A	81	TRP
185	A	87	LYS
185	A	99	GLU
185	A	101	LEU
185	A	105	GLU
185	A	110	GLN
185	A	114	TRP

Model ID	Chain	Residue ID	Residue type
185	A	115	ILE
185	A	121	LEU
185	A	127	VAL
185	A	143	TYR
185	A	148	LEU
185	A	153	ARG
185	A	162	GLU
185	A	165	VAL
185	A	171	PHE
185	A	172	VAL
185	A	175	PHE
185	A	176	PRO
185	A	180	TRP
185	A	182	LEU
185	A	183	ARG
185	A	187	LEU
185	A	189	LEU
185	A	196	LEU
185	A	208	LEU
185	A	210	LYS
185	A	224	LEU
185	A	227	ARG
185	A	233	LYS

Model ID	Chain	Residue ID	Residue type
185	A	237	VAL
185	A	239	ASP
185	A	257	GLU
185	A	258	LEU
185	A	265	GLN
185	A	266	VAL
185	A	270	CYS
185	A	274	PHE
185	A	287	GLN
185	A	292	ARG
185	A	293	LEU
185	A	294	GLU
185	A	312	MET
185	A	317	LEU
185	A	322	ILE
185	A	329	GLN
185	A	344	GLN
185	A	353	LEU
185	A	357	HIS
185	A	361	GLU
185	A	363	GLU
185	A	369	ILE
185	A	376	VAL

Model ID	Chain	Residue ID	Residue type
185	A	379	LEU
185	A	384	LEU
185	A	387	GLN
185	A	395	PHE
185	A	418	LEU
185	A	421	GLU
185	A	429	LYS
185	A	433	TYR
185	A	435	LEU
185	A	437	VAL
185	A	439	LYS
185	A	440	LEU
185	A	444	LYS
185	A	453	LYS
185	A	482	LEU
185	A	484	GLU
185	A	506	LEU
185	A	518	GLU
185	A	531	LEU
185	A	540	VAL
185	A	542	LEU
185	A	545	GLU
185	A	550	LEU

Model ID	Chain	Residue ID	Residue type
185	A	554	LEU
185	A	561	LEU
185	A	571	ILE
185	A	578	ASP
185	A	579	LEU
186	A	35	THR
186	A	39	VAL
186	A	51	LYS
186	A	52	SER
186	A	69	SER
186	A	92	ILE
186	A	111	ASN
186	A	151	ARG
186	A	189	LEU
186	A	202	LEU
186	A	206	LEU
186	A	237	VAL
186	A	249	GLN
186	A	251	GLU
186	A	263	VAL
186	A	276	ASN
186	A	293	LEU
186	A	311	CYS

Model ID	Chain	Residue ID	Residue type
186	A	336	GLU
186	A	343	VAL
186	A	345	LEU
186	A	395	PHE
186	A	399	ASN
186	A	405	ASP
186	A	435	LEU
186	A	492	GLU
186	A	528	LEU
186	A	545	GLU
186	A	547	GLU
186	A	552	LEU
186	A	560	LEU
187	A	4	GLU
187	A	7	MET
187	A	13	LEU
187	A	14	ILE
187	A	30	ILE
187	A	34	ILE
187	A	40	VAL
187	A	48	ARG
187	A	49	THR
187	A	54	LEU

Model ID	Chain	Residue ID	Residue type
187	A	63	LYS
187	A	67	LEU
187	A	74	HIS
187	A	78	ILE
187	A	87	LYS
187	A	92	ILE
187	A	95	LEU
187	A	104	VAL
187	A	110	GLN
187	A	114	TRP
187	A	120	VAL
187	A	131	ILE
187	A	143	TYR
187	A	155	LYS
187	A	166	GLU
187	A	171	PHE
187	A	189	LEU
187	A	208	LEU
187	A	225	CYS
187	A	234	LYS
187	A	237	VAL
187	A	245	ARG
187	A	246	LYS

Model ID	Chain	Residue ID	Residue type
187	A	274	PHE
187	A	278	LYS
187	A	288	VAL
187	A	292	ARG
187	A	293	LEU
187	A	298	LEU
187	A	301	VAL
187	A	309	LEU
187	A	313	GLU
187	A	317	LEU
187	A	322	ILE
187	A	330	LYS
187	A	338	GLN
187	A	350	LEU
187	A	353	LEU
187	A	354	LEU
187	A	356	LEU
187	A	357	HIS
187	A	376	VAL
187	A	379	LEU
187	A	380	PHE
187	A	381	GLN
187	A	383	GLU

Model ID	Chain	Residue ID	Residue type
187	A	384	LEU
187	A	391	LYS
187	A	392	ARG
187	A	406	ARG
187	A	412	GLN
187	A	413	VAL
187	A	419	GLU
187	A	439	LYS
187	A	441	GLN
187	A	453	LYS
187	A	458	GLU
187	A	463	THR
187	A	465	LEU
187	A	468	LYS
187	A	471	MET
187	A	488	GLU
187	A	491	VAL
187	A	495	LYS
187	A	511	ARG
187	A	512	LYS
187	A	518	GLU
187	A	524	TYR
187	A	531	LEU

Model ID	Chain	Residue ID	Residue type
187	A	539	ARG
187	A	542	LEU
187	A	544	LYS
187	A	550	LEU
187	A	552	LEU
187	A	553	LYS
187	A	554	LEU
187	A	557	GLN
187	A	559	GLN
187	A	560	LEU
187	A	562	LYS
187	A	567	LYS
187	A	579	LEU
188	A	5	ILE
188	A	10	PRO
188	A	18	ASN
188	A	28	LEU
188	A	30	ILE
188	A	34	ILE
188	A	39	VAL
188	A	40	VAL
188	A	41	VAL
188	A	44	VAL

Model ID	Chain	Residue ID	Residue type
188	A	48	ARG
188	A	49	THR
188	A	53	TYR
188	A	54	LEU
188	A	61	LYS
188	A	63	LYS
188	A	67	LEU
188	A	78	ILE
188	A	93	LEU
188	A	95	LEU
188	A	101	LEU
188	A	114	TRP
188	A	115	ILE
188	A	122	LEU
188	A	129	ASN
188	A	131	ILE
188	A	134	ILE
188	A	137	GLN
188	A	155	LYS
188	A	162	GLU
188	A	167	ASP
188	A	172	VAL
188	A	174	PHE

Model ID	Chain	Residue ID	Residue type
188	A	175	PHE
188	A	180	TRP
188	A	181	THR
188	A	189	LEU
188	A	206	LEU
188	A	220	ASN
188	A	224	LEU
188	A	237	VAL
188	A	243	HIS
188	A	244	ARG
188	A	246	LYS
188	A	247	LEU
188	A	249	GLN
188	A	252	LYS
188	A	265	GLN
188	A	274	PHE
188	A	294	GLU
188	A	298	LEU
188	A	301	VAL
188	A	321	GLN
188	A	322	ILE
188	A	330	LYS
188	A	338	GLN

Model ID	Chain	Residue ID	Residue type
188	A	350	LEU
188	A	351	GLN
188	A	356	LEU
188	A	357	HIS
188	A	365	ILE
188	A	370	ARG
188	A	379	LEU
188	A	383	GLU
188	A	391	LYS
188	A	392	ARG
188	A	398	GLN
188	A	399	ASN
188	A	413	VAL
188	A	414	ILE
188	A	426	ILE
188	A	438	GLN
188	A	439	LYS
188	A	453	LYS
188	A	455	ILE
188	A	476	LEU
188	A	478	THR
188	A	480	GLN
188	A	482	LEU

Model ID	Chain	Residue ID	Residue type
188	A	483	THR
188	A	484	GLU
188	A	488	GLU
188	A	491	VAL
188	A	497	GLU
188	A	500	GLN
188	A	506	LEU
188	A	507	HIS
188	A	508	GLU
188	A	512	LYS
188	A	516	MET
188	A	520	LYS
188	A	524	TYR
188	A	526	GLU
188	A	527	HIS
188	A	528	LEU
188	A	529	LYS
188	A	534	LYS
188	A	537	ASN
188	A	542	LEU
188	A	543	LEU
188	A	544	LYS
188	A	560	LEU

Model ID	Chain	Residue ID	Residue type
188	A	561	LEU
188	A	575	GLU
188	A	576	ILE
188	A	579	LEU
188	A	580	GLN
188	A	582	LYS
189	A	40	VAL
189	A	41	VAL
189	A	46	LEU
189	A	58	LEU
189	A	122	LEU
189	A	143	TYR
189	A	226	ILE
189	A	229	PHE
189	A	233	LYS
189	A	242	VAL
189	A	301	VAL
189	A	329	GLN
189	A	478	THR
189	A	486	GLU
189	A	508	GLU
189	A	511	ARG
189	A	538	ASP

Model ID	Chain	Residue ID	Residue type
189	A	542	LEU
189	A	561	LEU
189	A	579	LEU
190	A	46	LEU
190	A	55	MET
190	A	58	LEU
190	A	84	PRO
190	A	143	TYR
190	A	166	GLU
190	A	190	GLU
190	A	202	LEU
190	A	233	LYS
190	A	247	LEU
190	A	250	LEU
190	A	253	LEU
190	A	261	GLU
190	A	286	ILE
190	A	291	PRO
190	A	294	GLU
190	A	311	CYS
190	A	312	MET
190	A	313	GLU
190	A	348	GLU

Model ID	Chain	Residue ID	Residue type
190	A	350	LEU
190	A	376	VAL
190	A	414	ILE
190	A	420	GLU
190	A	464	TYR
190	A	471	MET
190	A	482	LEU
190	A	511	ARG
190	A	512	LYS
190	A	515	GLN
190	A	528	LEU
190	A	529	LYS
190	A	539	ARG
190	A	579	LEU
191	A	39	VAL
191	A	46	LEU
191	A	58	LEU
191	A	75	THR
191	A	99	GLU
191	A	143	TYR
191	A	165	VAL
191	A	166	GLU
191	A	179	VAL

Model ID	Chain	Residue ID	Residue type
191	A	190	GLU
191	A	194	GLN
191	A	208	LEU
191	A	233	LYS
191	A	238	PHE
191	A	253	LEU
191	A	272	TYR
191	A	274	PHE
191	A	286	ILE
191	A	294	GLU
191	A	316	VAL
191	A	348	GLU
191	A	379	LEU
191	A	382	LYS
191	A	407	CYS
191	A	420	GLU
191	A	435	LEU
191	A	475	ILE
191	A	511	ARG
191	A	512	LYS
192	A	8	THR
192	A	29	LYS
192	A	35	THR

Model ID	Chain	Residue ID	Residue type
192	A	41	VAL
192	A	49	THR
192	A	57	LYS
192	A	129	ASN
192	A	130	SER
192	A	131	ILE
192	A	150	HIS
192	A	183	ARG
192	A	189	LEU
192	A	202	LEU
192	A	208	LEU
192	A	249	GLN
192	A	254	GLN
192	A	367	VAL
192	A	369	ILE
192	A	370	ARG
192	A	521	GLU
192	A	539	ARG
192	A	552	LEU
193	A	11	MET
193	A	13	LEU
193	A	28	LEU
193	A	30	ILE

Model ID	Chain	Residue ID	Residue type
193	A	35	THR
193	A	41	VAL
193	A	75	THR
193	A	113	SER
193	A	114	TRP
193	A	133	THR
193	A	153	ARG
193	A	165	VAL
193	A	179	VAL
193	A	183	ARG
193	A	189	LEU
193	A	196	LEU
193	A	218	THR
193	A	253	LEU
193	A	272	TYR
193	A	292	ARG
193	A	309	LEU
193	A	319	LEU
193	A	330	LYS
193	A	338	GLN
193	A	350	LEU
193	A	354	LEU
193	A	369	ILE

Model ID	Chain	Residue ID	Residue type
193	A	384	LEU
193	A	391	LYS
193	A	401	GLU
193	A	411	LEU
193	A	414	ILE
193	A	463	THR
193	A	476	LEU
193	A	480	GLN
193	A	482	LEU
193	A	534	LYS
194	A	1	MET
194	A	10	PRO
194	A	13	LEU
194	A	14	ILE
194	A	34	ILE
194	A	39	VAL
194	A	40	VAL
194	A	41	VAL
194	A	46	LEU
194	A	49	THR
194	A	52	SER
194	A	54	LEU
194	A	55	MET

Model ID	Chain	Residue ID	Residue type
194	A	67	LEU
194	A	76	LYS
194	A	78	ILE
194	A	92	ILE
194	A	95	LEU
194	A	101	LEU
194	A	114	TRP
194	A	120	VAL
194	A	122	LEU
194	A	127	VAL
194	A	143	TYR
194	A	165	VAL
194	A	171	PHE
194	A	176	PRO
194	A	180	TRP
194	A	189	LEU
194	A	202	LEU
194	A	208	LEU
194	A	214	GLN
194	A	216	ASP
194	A	217	GLU
194	A	220	ASN
194	A	225	CYS

Model ID	Chain	Residue ID	Residue type
194	A	226	ILE
194	A	228	LYS
194	A	232	LYS
194	A	233	LYS
194	A	247	LEU
194	A	249	GLN
194	A	252	LYS
194	A	253	LEU
194	A	265	GLN
194	A	273	ILE
194	A	274	PHE
194	A	282	LEU
194	A	291	PRO
194	A	293	LEU
194	A	294	GLU
194	A	316	VAL
194	A	319	LEU
194	A	322	ILE
194	A	324	ASN
194	A	330	LYS
194	A	350	LEU
194	A	353	LEU
194	A	373	PHE

Model ID	Chain	Residue ID	Residue type
194	A	379	LEU
194	A	380	PHE
194	A	381	GLN
194	A	382	LYS
194	A	390	LYS
194	A	398	GLN
194	A	399	ASN
194	A	418	LEU
194	A	426	ILE
194	A	434	ARG
194	A	441	GLN
194	A	453	LYS
194	A	465	LEU
194	A	468	LYS
194	A	476	LEU
194	A	477	GLN
194	A	482	LEU
194	A	492	GLU
194	A	495	LYS
194	A	500	GLN
194	A	506	LEU
194	A	512	LYS
194	A	518	GLU

Model ID	Chain	Residue ID	Residue type
194	A	522	ARG
194	A	528	LEU
194	A	529	LYS
194	A	541	GLN
194	A	542	LEU
194	A	543	LEU
194	A	544	LYS
194	A	550	LEU
194	A	554	LEU
194	A	559	GLN
194	A	561	LEU
194	A	565	PHE
194	A	569	SER
194	A	579	LEU
195	A	4	GLU
195	A	5	ILE
195	A	36	GLN
195	A	54	LEU
195	A	57	LYS
195	A	61	LYS
195	A	67	LEU
195	A	75	THR
195	A	78	ILE

Model ID	Chain	Residue ID	Residue type
195	A	80	MET
195	A	87	LYS
195	A	94	VAL
195	A	95	LEU
195	A	101	LEU
195	A	114	TRP
195	A	115	ILE
195	A	120	VAL
195	A	126	PHE
195	A	134	ILE
195	A	143	TYR
195	A	144	TYR
195	A	149	THR
195	A	150	HIS
195	A	151	ARG
195	A	166	GLU
195	A	171	PHE
195	A	175	PHE
195	A	180	TRP
195	A	182	LEU
195	A	183	ARG
195	A	184	ASP
195	A	189	LEU

Model ID	Chain	Residue ID	Residue type
195	A	223	ARG
195	A	225	CYS
195	A	226	ILE
195	A	233	LYS
195	A	237	VAL
195	A	247	LEU
195	A	253	LEU
195	A	260	PRO
195	A	265	GLN
195	A	266	VAL
195	A	273	ILE
195	A	288	VAL
195	A	292	ARG
195	A	294	GLU
195	A	297	VAL
195	A	298	LEU
195	A	309	LEU
195	A	313	GLU
195	A	317	LEU
195	A	322	ILE
195	A	330	LYS
195	A	337	GLN
195	A	339	MET

Model ID	Chain	Residue ID	Residue type
195	A	348	GLU
195	A	358	ARG
195	A	370	ARG
195	A	374	LYS
195	A	379	LEU
195	A	384	LEU
195	A	418	LEU
195	A	419	GLU
195	A	421	GLU
195	A	422	VAL
195	A	429	LYS
195	A	434	ARG
195	A	435	LEU
195	A	439	LYS
195	A	443	LEU
195	A	444	LYS
195	A	459	GLU
195	A	460	ILE
195	A	461	LEU
195	A	464	TYR
195	A	468	LYS
195	A	473	ASP
195	A	477	GLN

Model ID	Chain	Residue ID	Residue type
195	A	506	LEU
195	A	511	ARG
195	A	513	ASN
195	A	528	LEU
195	A	530	GLN
195	A	531	LEU
195	A	539	ARG
195	A	541	GLN
195	A	542	LEU
195	A	543	LEU
195	A	544	LYS
195	A	546	GLN
195	A	548	ARG
195	A	554	LEU
195	A	555	GLN
195	A	559	GLN
195	A	560	LEU
195	A	566	GLN
195	A	570	ARG
195	A	572	MET
195	A	576	ILE
195	A	579	LEU
196	A	1	MET

Model ID	Chain	Residue ID	Residue type
196	A	4	GLU
196	A	13	LEU
196	A	14	ILE
196	A	20	ARG
196	A	22	MET
196	A	34	ILE
196	A	39	VAL
196	A	40	VAL
196	A	41	VAL
196	A	44	VAL
196	A	46	LEU
196	A	49	THR
196	A	55	MET
196	A	61	LYS
196	A	78	ILE
196	A	95	LEU
196	A	114	TRP
196	A	122	LEU
196	A	127	VAL
196	A	131	ILE
196	A	151	ARG
196	A	165	VAL
196	A	166	GLU

Model ID	Chain	Residue ID	Residue type
196	A	168	SER
196	A	171	PHE
196	A	176	PRO
196	A	180	TRP
196	A	184	ASP
196	A	187	LEU
196	A	189	LEU
196	A	206	LEU
196	A	215	LYS
196	A	220	ASN
196	A	221	LEU
196	A	224	LEU
196	A	226	ILE
196	A	229	PHE
196	A	231	PRO
196	A	237	VAL
196	A	264	GLN
196	A	266	VAL
196	A	274	PHE
196	A	286	ILE
196	A	289	ASN
196	A	294	GLU
196	A	298	LEU

Model ID	Chain	Residue ID	Residue type
196	A	309	LEU
196	A	313	GLU
196	A	317	LEU
196	A	322	ILE
196	A	330	LYS
196	A	350	LEU
196	A	354	LEU
196	A	355	ASP
196	A	357	HIS
196	A	376	VAL
196	A	379	LEU
196	A	381	GLN
196	A	384	LEU
196	A	397	LYS
196	A	406	ARG
196	A	413	VAL
196	A	419	GLU
196	A	427	TYR
196	A	440	LEU
196	A	443	LEU
196	A	445	LYS
196	A	453	LYS
196	A	475	ILE

Model ID	Chain	Residue ID	Residue type
196	A	487	LYS
196	A	492	GLU
196	A	506	LEU
196	A	528	LEU
196	A	533	GLU
196	A	543	LEU
196	A	554	LEU
196	A	563	GLU
196	A	579	LEU
196	A	582	LYS
197	A	95	LEU
197	A	123	SER
197	A	125	THR
197	A	131	ILE
197	A	182	LEU
197	A	189	LEU
197	A	206	LEU
197	A	210	LYS
197	A	253	LEU
197	A	273	ILE
197	A	292	ARG
197	A	312	MET
197	A	362	ARG

Model ID	Chain	Residue ID	Residue type
197	A	381	GLN
197	A	422	VAL
197	A	440	LEU
197	A	579	LEU
198	A	41	VAL
198	A	51	LYS
198	A	55	MET
198	A	62	LYS
198	A	72	GLN
198	A	94	VAL
198	A	96	LEU
198	A	109	ASN
198	A	134	ILE
198	A	135	ASN
198	A	151	ARG
198	A	184	ASP
198	A	189	LEU
198	A	198	PRO
198	A	247	LEU
198	A	251	GLU
198	A	280	LYS
198	A	281	THR
198	A	317	LEU

Model ID	Chain	Residue ID	Residue type
198	A	319	LEU
198	A	328	VAL
198	A	332	ILE
198	A	336	GLU
198	A	351	GLN
198	A	468	LYS
198	A	472	THR
198	A	484	GLU
198	A	508	GLU
198	A	511	ARG
198	A	542	LEU
198	A	544	LYS
198	A	545	GLU
198	A	556	GLU
198	A	572	MET
198	A	573	LYS
199	A	151	ARG
199	A	152	ILE
199	A	189	LEU
199	A	190	GLU
199	A	195	PRO
199	A	199	ASP
199	A	233	LYS

Model ID	Chain	Residue ID	Residue type
199	A	287	GLN
199	A	292	ARG
199	A	301	VAL
199	A	321	GLN
199	A	342	LYS
199	A	343	VAL
199	A	369	ILE
199	A	384	LEU
199	A	426	ILE
199	A	471	MET
199	A	488	GLU
199	A	518	GLU
199	A	535	MET
199	A	552	LEU
200	A	14	ILE
200	A	28	LEU
200	A	38	MET
200	A	39	VAL
200	A	40	VAL
200	A	46	LEU
200	A	48	ARG
200	A	51	LYS
200	A	54	LEU

Model ID	Chain	Residue ID	Residue type
200	A	55	MET
200	A	56	ASN
200	A	58	LEU
200	A	61	LYS
200	A	62	LYS
200	A	67	LEU
200	A	72	GLN
200	A	78	ILE
200	A	92	ILE
200	A	96	LEU
200	A	106	LYS
200	A	114	TRP
200	A	121	LEU
200	A	122	LEU
200	A	124	SER
200	A	127	VAL
200	A	143	TYR
200	A	145	VAL
200	A	151	ARG
200	A	155	LYS
200	A	172	VAL
200	A	175	PHE
200	A	177	ASP

Model ID	Chain	Residue ID	Residue type
200	A	183	ARG
200	A	207	LYS
200	A	208	LEU
200	A	215	LYS
200	A	220	ASN
200	A	226	ILE
200	A	229	PHE
200	A	233	LYS
200	A	249	GLN
200	A	266	VAL
200	A	277	SER
200	A	288	VAL
200	A	293	LEU
200	A	301	VAL
200	A	308	ASP
200	A	309	LEU
200	A	312	MET
200	A	314	ASN
200	A	316	VAL
200	A	317	LEU
200	A	319	LEU
200	A	323	GLU
200	A	329	GLN

Model ID	Chain	Residue ID	Residue type
200	A	330	LYS
200	A	334	HIS
200	A	337	GLN
200	A	351	GLN
200	A	354	LEU
200	A	370	ARG
200	A	374	LYS
200	A	376	VAL
200	A	378	HIS
200	A	379	LEU
200	A	381	GLN
200	A	382	LYS
200	A	384	LEU
200	A	387	GLN
200	A	408	SER
200	A	413	VAL
200	A	415	PHE
200	A	419	GLU
200	A	426	ILE
200	A	429	LYS
200	A	435	LEU
200	A	440	LEU
200	A	443	LEU

Model ID	Chain	Residue ID	Residue type
200	A	446	LYS
200	A	447	TYR
200	A	448	TYR
200	A	452	ARG
200	A	462	GLN
200	A	465	LEU
200	A	466	LYS
200	A	468	LYS
200	A	473	ASP
200	A	475	ILE
200	A	478	THR
200	A	480	GLN
200	A	486	GLU
200	A	505	MET
200	A	515	GLN
200	A	527	HIS
200	A	530	GLN
200	A	531	LEU
200	A	537	ASN
200	A	541	GLN
200	A	543	LEU
200	A	552	LEU
200	A	560	LEU

Model ID	Chain	Residue ID	Residue type
200	A	561	LEU
200	A	566	GLN
200	A	574	ASN
200	A	576	ILE
200	A	577	GLN
200	A	579	LEU
200	A	581	THR
200	A	582	LYS
201	A	14	ILE
201	A	39	VAL
201	A	40	VAL
201	A	44	VAL
201	A	51	LYS
201	A	95	LEU
201	A	127	VAL
201	A	140	ASP
201	A	145	VAL
201	A	152	ILE
201	A	170	ASP
201	A	183	ARG
201	A	206	LEU
201	A	216	ASP
201	A	237	VAL

Model ID	Chain	Residue ID	Residue type
201	A	242	VAL
201	A	251	GLU
201	A	274	PHE
201	A	278	LYS
201	A	280	LYS
201	A	283	SER
201	A	286	ILE
201	A	288	VAL
201	A	291	PRO
201	A	294	GLU
201	A	296	LEU
201	A	350	LEU
201	A	374	LYS
201	A	405	ASP
201	A	414	ILE
201	A	418	LEU
201	A	435	LEU
201	A	480	GLN
201	A	540	VAL
201	A	544	LYS
202	A	40	VAL
202	A	57	LYS
202	A	58	LEU

Model ID	Chain	Residue ID	Residue type
202	A	79	TRP
202	A	109	ASN
202	A	111	ASN
202	A	127	VAL
202	A	153	ARG
202	A	161	ASN
202	A	177	ASP
202	A	189	LEU
202	A	231	PRO
202	A	243	HIS
202	A	266	VAL
202	A	274	PHE
202	A	329	GLN
202	A	353	LEU
202	A	379	LEU
202	A	382	LYS
202	A	384	LEU
202	A	392	ARG
202	A	418	LEU
202	A	443	LEU
202	A	449	GLU
202	A	506	LEU
203	A	14	ILE

Model ID	Chain	Residue ID	Residue type
203	A	34	ILE
203	A	39	VAL
203	A	51	LYS
203	A	55	MET
203	A	84	PRO
203	A	95	LEU
203	A	140	ASP
203	A	151	ARG
203	A	162	GLU
203	A	183	ARG
203	A	189	LEU
203	A	220	ASN
203	A	242	VAL
203	A	251	GLU
203	A	274	PHE
203	A	275	SER
203	A	278	LYS
203	A	317	LEU
203	A	368	PHE
203	A	411	LEU
203	A	418	LEU
203	A	421	GLU
203	A	437	VAL

Model ID	Chain	Residue ID	Residue type
203	A	463	THR
203	A	476	LEU
203	A	480	GLN
203	A	481	THR
203	A	483	THR
203	A	506	LEU
203	A	544	LYS
203	A	568	GLU
203	A	579	LEU
204	A	13	LEU
204	A	58	LEU
204	A	95	LEU
204	A	96	LEU
204	A	121	LEU
204	A	134	ILE
204	A	153	ARG
204	A	168	SER
204	A	206	LEU
204	A	251	GLU
204	A	253	LEU
204	A	280	LYS
204	A	292	ARG
204	A	293	LEU

Model ID	Chain	Residue ID	Residue type
204	A	294	GLU
204	A	310	PRO
204	A	312	MET
204	A	317	LEU
204	A	335	TYR
204	A	354	LEU
204	A	384	LEU
204	A	391	LYS
204	A	397	LYS
204	A	440	LEU
204	A	441	GLN
204	A	458	GLU
204	A	462	GLN
204	A	528	LEU
205	A	7	MET
205	A	13	LEU
205	A	40	VAL
205	A	41	VAL
205	A	58	LEU
205	A	95	LEU
205	A	114	TRP
205	A	127	VAL
205	A	134	ILE

Model ID	Chain	Residue ID	Residue type
205	A	149	THR
205	A	153	ARG
205	A	161	ASN
205	A	183	ARG
205	A	233	LYS
205	A	263	VAL
205	A	266	VAL
205	A	280	LYS
205	A	292	ARG
205	A	294	GLU
205	A	296	LEU
205	A	297	VAL
205	A	304	ILE
205	A	314	ASN
205	A	335	TYR
205	A	349	SER
205	A	354	LEU
205	A	380	PHE
205	A	391	LYS
205	A	406	ARG
205	A	434	ARG
205	A	435	LEU
205	A	443	LEU

Model ID	Chain	Residue ID	Residue type
205	A	470	SER
205	A	509	MET
205	A	545	GLU
205	A	548	ARG
206	A	4	GLU
206	A	5	ILE
206	A	13	LEU
206	A	20	ARG
206	A	28	LEU
206	A	30	ILE
206	A	58	LEU
206	A	94	VAL
206	A	114	TRP
206	A	127	VAL
206	A	145	VAL
206	A	165	VAL
206	A	253	LEU
206	A	282	LEU
206	A	292	ARG
206	A	317	LEU
206	A	323	GLU
206	A	350	LEU
206	A	354	LEU

Model ID	Chain	Residue ID	Residue type
206	A	391	LYS
206	A	397	LYS
206	A	411	LEU
206	A	449	GLU
206	A	452	ARG
206	A	458	GLU
206	A	475	ILE
206	A	477	GLN
206	A	481	THR
206	A	491	VAL
206	A	505	MET
206	A	531	LEU

Fit of model to data used for modeling

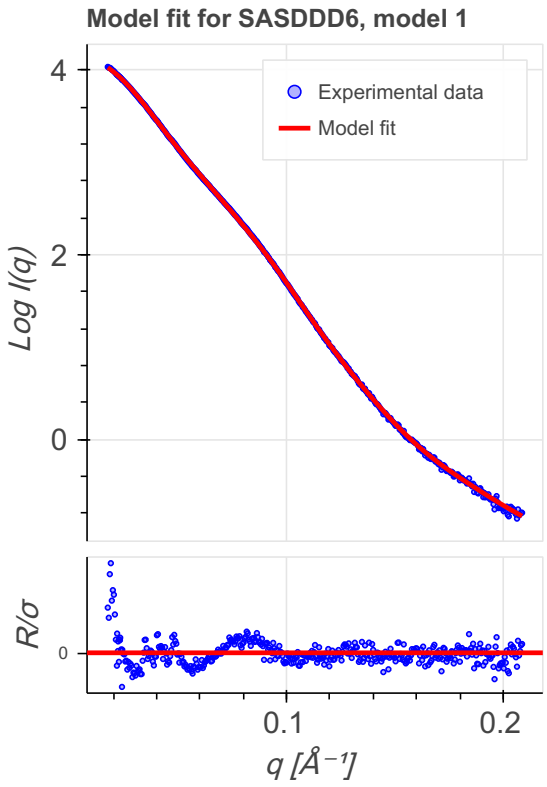
Fit of model(s) to SAS data

χ^2 goodness of fit and cormap analysis

Model and fits displayed below were obtained from SASBDB. χ^2 values are a measure of fit of the model to data. A perfect fit has a χ^2 value of 1.0. ATSAS datcmp was used for hypothesis testing. All data sets are similar (i.e. the fit and the data collected) is the null hypothesis. p-value is a measure of evidence against the null hypothesis, smaller the value, the stronger the evidence that you should reject the null hypothesis.

SASDB ID	Model	χ^2	p-value
SASDDD6	1	2.95	0.00E+00

Model fit for SASDDD6 (fit/model number 1): Residual value plot is a measure to assess fit to the data. Residual values should be equally and randomly spaced around the horizontal axis.



Single molecule FRET

Validation for this section is under development.

Fit of model to data used for validation

Validation for this section is under development.

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