MolProbity Ramachandran analysis

ISSN, all models

http://kinemage.biochem.duke.edu

MolProbity Ramachandran analysis

1SSN, model 1

62.7% (84/134) of all residues were in favored (98%) regions.
95.5% (128/134) of all residues were in allowed (>99.8%) regions.

There were 6 outliers (phi, psi):
[1] 4 PHE (51.9, -174.4)
[1] 34 SER (-178.5, -58.5)
[1] 36 GLY (-176.2, 28.3)
[1] 78 VAL (76.6, 119.5)
[1] 105 PRO (-78.8, -118.8)
[1] 118 GLU (-165.2, -53.8)

http://kinemage.biochem.duke.edu

69.4% (93/134) of all residues were in favored (98%) regions.
95.5% (128/134) of all residues were in allowed (>99.8%) regions.

There were 6 outliers (phi, psi):
1. [2] 22 GLY (-179.0, 81.0)
2. [2] 34 SER (169.5, -58.0)
3. [2] 36 GLY (164.7, 62.9)
4. [2] 44 TYR (-163.8, -51.8)
5. [2] 105 PRO (-79.4, -117.0)
6. [2] 110 GLY (133.9, 73.7)

http://kinemage.biochem.duke.edu

MolProbity Ramachandran analysis

General case

Pre-proline

Glycine

Trans proline

Cis proline

67.9% (91/134) of all residues were in favored (98%) regions.
92.5% (124/134) of all residues were in allowed (>99.8%) regions.

There were 10 outliers (phi, psi):
[i]  2 SER (-14.1, -78.0)
[ii]  4 PHE (-0.2, 98.8)
[iii]  16 SER (-162.8, -35.6)
[iv]  19 GLU (65.8, 178.0)
[v]  70 ALA (-169.1, 49.9)
[vi]  75 GLU (63.6, 111.5)
[vii]  114 PRO (-76.4, -101.3)
[viii]  117 SER (63.0, -95.1)
[ix]  118 GLU (-167.4, -48.8)

http://kinemage.biochem.duke.edu

70.1% (94/134) of all residues were in favored (98%) regions.
94.8% (127/134) of all residues were in allowed (>99.8%) regions.

There were 7 outliers (phi, psi):
[4] 16 SER (-166.3, -130.1)
[4] 18 PHE (66.7, 103.6)
[4] 20 PRO (-57.6, 96.1)
[4] 44 TYR (-164.9, 14.0)
[4] 105 PRO (-78.8, -116.1)
[4] 110 GLY (145.4, 63.9)
[4] 118 GLU (-163.2, -38.2)

http://kinemage.biochem.duke.edu

MolProbity Ramachandran analysis

1SSN, model 5

70.9% (95/134) of all residues were in favored (98%) regions.
94.8% (127/134) of all residues were in allowed (>99.8%) regions.

There were 7 outliers (phi, psi):
[5] 6 LYS (50.5, 83.4)
[5] 18 PHE (70.1, 121.9)
[5] 19 GLU (73.9, 137.8)
[5] 74 LYS (66.4, -80.4)
[5] 75 GLU (-84.3, -115.4)
[5] 78 VAL (60.9, 78.5)
[5] 105 PRO (-79.9, -125.0)

http://kinemage.biochem.duke.edu

MolProbity Ramachandran analysis

1SSN, model 6

70.1% (94/134) of all residues were in favored (98%) regions.
94.8% (127/134) of all residues were in allowed (>99.8%) regions.

There were 7 outliers (phi, psi):

- 6 SER (-81.2, -113.2)
- 5 ASP (-40.1, 88.7)
- 6 LYS (-176.7, 143.5)
- 44 TYR (-170.9, -11.2)
- 110 GLY (-177.4, 74.4)
- 118 GLU (-154.4, -99.2)
- 129 PHE (-60.7, 96.0)

http://kinemage.biochem.duke.edu

MolProbity Ramachandran analysis

1SSN, model 7

General case

Isoleucine and valine

Pre-proline

Glycine

Trans proline

Cis proline

70.9% (95/134) of all residues were in favored (98%) regions.
94.8% (127/134) of all residues were in allowed (>99.8%) regions.

There were 7 outliers (phi, psi):
[7] 11 LYS (54.0, -95.3)
[7] 71 THR (-161.5, -45.6)
[7] 78 VAL (71.0, 114.2)
[7] 105 PRO (-77.2, -113.4)
[7] 117 SER (25.7, -103.8)
[7] 118 GLU (-162.9, -33.7)
[7] 123 PRO (-76.5, -84.9)

http://kinemage.biochem.duke.edu

MolProbity Ramachandran analysis

ISSN, model 8

General case

Isoleucine and valine

Pre-proline

Glycine

Trans proline

Cis proline

67.2% (90/134) of all residues were in favored (98%) regions.
95.5% (128/134) of all residues were in allowed (>99.8%) regions.

There were 6 outliers (phi, psi):
[8] 4 PHE (42.9, 92.3)
[8] 11 LYS (59.2, -83.0)
[8] 36 GLY (143.9, 65.6)
[8] 49 ILE (70.0, 136.5)
[8] 70 ALA (-173.6, -52.4)
[8] 105 PRO (-77.8, -139.3)

67.2% (90/134) of all residues were in favored (98%) regions.
95.5% (128/134) of all residues were in allowed (>99.8%) regions.

There were 6 outliers (phi, psi):
[8] 4 PHE (42.9, 92.3)
[8] 11 LYS (59.2, -83.0)
[8] 36 GLY (143.9, 65.6)
[8] 49 ILE (70.0, 136.5)
[8] 70 ALA (-173.6, -52.4)
[8] 105 PRO (-77.8, -139.3)

http://kinemage.biochem.duke.edu

69.4% (93/134) of all residues were in favored (98%) regions.
94.8% (127/134) of all residues were in allowed (>99.8%) regions.

There were 7 outliers (phi, psi):
9 12 GLY (177.6, -105.8)
9 72 ALA (-81.8, -105.8)
9 74 LYS (70.2, 82.6)
9 114 PRO (-77.1, -95.2)
9 117 SER (34.5, -103.8)
9 118 GLU (-161.9, -51.7)

http://kinemage.biochem.duke.edu

64.9% (87/134) of all residues were in favored (98%) regions.
94.8% (127/134) of all residues were in allowed (>99.8%) regions.

There were 7 outliers (phi, psi):
[10]  11 LYS (57.3, -87.6)
[10]  34 SER (-178.9, -56.1)
[10]  36 GLY (177.0, -19.8)
[10]  49 ILE (54.2, 149.6)
[10]  105 PRO (-78.1, -115.8)
[10]  114 PRO (-70.3, -66.2)
[10]  115 ASP (173.1, -66.4)

http://kinemage.biochem.duke.edu

MolProbity Ramachandran analysis

76.9% (103/134) of all residues were in favored (98%) regions.
97.8% (131/134) of all residues were in allowed (>99.8%) regions.

There were 3 outliers (phi, psi):
[11] 3 SER (-164.7, -38.0)
[11] 4 PHE (68.0, 120.8)
61.9% (83/134) of all residues were in favored (98%) regions.
91.8% (123/134) of all residues were in allowed (>99.8%) regions.

There were 11 outliers (phi, psi):

1. **2 SER** (67.4, 127.2)
2. **4 PHE** (73.3, 128.7)
3. **11 LYS** (65.6, -82.8)
4. **12 GLY** (-176.2, 2.9)
5. **15 ALA** (-176.7, -44.4)
6. **20 PRO** (-55.8, 96.5)
7. **71 THR** (-168.1, -42.7)
8. **78 VAL** (69.1, 92.6)
9. **105 PRO** (-76.2, -114.0)
10. **118 GLU** (-163.5, -58.1)
11. **123 PRO** (-68.9, -73.9)

http://kinemage.biochem.duke.edu

MolProbity Ramachandran analysis

1SSN, model 13

61.2% (82/134) of all residues were in favored (98%) regions.
92.5% (124/134) of all residues were in allowed (>99.8%) regions.

There were 10 outliers (phi, psi):

(3) 78 VAL (71.8, 82.3)
(3) 85 ALA (15.7, 74.4)
(3) 98 LYS (-10.2, 108.2)
(3) 99 GLU (-168.0, -46.2)
(3) 105 PRO (-77.3, -129.0)
(3) 114 PRO (-80.5, -109.2)
(3) 118 GLU (-168.0, -46.2)
(15) 14 PRO (-110.4, 110.2)
(15) 18 SER (-143.9, 104.5)
(15) 34 SER (169.7, -59.8)
(15) 34 SER (169.7, -59.8)
(15) 74 LYS (68.6, -90.2)
(13) 78 VAL (71.8, 82.3)
(13) 78 VAL (71.8, 82.3)
(13) 85 ALA (15.7, 74.4)
(13) 85 ALA (15.7, 74.4)
(13) 98 LYS (76.5, 125.5)
(13) 98 LYS (76.5, 125.5)
(13) 105 PRO (-77.3, -129.0)
(13) 105 PRO (-77.3, -129.0)
(13) 114 PRO (-80.5, -109.2)
(13) 114 PRO (-80.5, -109.2)
(13) 118 GLU (-168.0, -46.2)
(13) 118 GLU (-168.0, -46.2)

http://kinemage.biochem.duke.edu

MolProbity Ramachandran analysis

General case

Pre-proline

Glycine

Trans proline

Cis proline

67.9% (91/134) of all residues were in favored (98%) regions.
94.0% (126/134) of all residues were in allowed (>99.8%) regions.

There were 8 outliers (phi, psi):
[14] 7 GLY (-177.0, 75.0)
[14] 11 LYS (64.2, -89.5)
[14] 60 ILE (-159.7, -48.6)
[14] 78 VAL (79.3, 126.9)
[14] 105 PRO (-79.7, -111.8)
[14] 114 PRO (-74.3, -94.3)
[14] 115 ASP (-169.8, -82.7)
[14] 118 GLU (-166.8, -48.4)

http://kinemage.biochem.duke.edu
MolProbity Ramachandran analysis

1SSN, model 15

67.2% (90/134) of all residues were in favored (98%) regions.
93.3% (125/134) of all residues were in allowed (>99.8%) regions.

There were 9 outliers (phi, psi):

18 PHE (56.6, 88.6)
34 SER (-173.1, -53.7)
49 ILE (40.0, 89.2)
73 TYR (55.0, 87.6)
74 LYS (-161.2, -49.3)
78 VAL (74.2, 115.6)
95 ASN (-178.7, -47.6)
105 PRO (-77.4, -114.3)
118 GLU (-163.9, -52.7)

http://kinemage.biochem.duke.edu

MolProbity Ramachandran analysis

1SSN, model 16

69.4% (93/134) of all residues were in favored (98%) regions.
96.3% (129/134) of all residues were in allowed (>99.8%) regions.

There were 5 outliers (phi, psi):
[16] 44 TYR (-165.3, -72.5)
[16] 49 ILE (39.4, 110.3)
[16] 78 VAL (72.1, 97.0)
[16] 105 PRO (-80.7, -118.2)
[16] 114 PRO (-79.4, -103.0)

http://kinemage.biochem.duke.edu

MolProbity Ramachandran analysis

General case

Pre-proline

Glycine

Trans proline

Cis proline

72.4% (97/134) of all residues were in favored (98%) regions.

94.8% (127/134) of all residues were in allowed (>99.8%) regions.

There were 7 outliers (phi, psi):

[17] 16 SER (-87.5, -122.3)
[17] 18 PHE (66.9, 119.2)
[17] 44 TYR (-162.2, -55.7)
[17] 72 ALA (-79.9, -101.2)
[17] 110 GLY (150.2, 63.8)
[17] 118 GLU (82.4, -76.7)
[17] 125 PHE (-64.1, 85.8)

http://kinemage.biochem.duke.edu

MolProbity Ramachandran analysis

18SSN, model 18

70.9% (95/134) of all residues were in favored (98%) regions.
93.3% (125/134) of all residues were in allowed (>99.8%) regions.

There were 9 outliers (phi, psi):

18) 3 SER (-164.8, 3.3)
18) 6 LYS (-162.2, -62.9)
18) 15 ALA (-175.1, 70.1)
18) 44 TYR (100.0, -45.0)
18) 60 ILE (-159.2, -41.9)
18) 70 ALA (-168.7, -53.9)
18) 76 PHE (34.9, 88.4)
18) 110 GLY (139.4, 61.9)
18) 118 GLU (-162.2, -44.2)

http://kinemage.biochem.duke.edu

MolProbity Ramachandran analysis

ISSN, model 19

69.4% (93/134) of all residues were in favored (98%) regions.
92.5% (124/134) of all residues were in allowed (>99.8%) regions.

There were 10 outliers (phi, psi):

- 2 SER (65.3, 146.2)
- 6 LYS (11.3, 76.3)
- 11 LYS (54.1, -92.6)
- 12 GLY (177.9, 58.7)
- 36 GLY (175.8, 46.9)
- 44 TYR (-162.3, -45.1)
- 49 ILE (59.5, 134.8)
- 114 PRO (-70.2, -80.1)
- 115 ASP (-169.1, -56.6)
- 135 LYS (93.1, 134.9)

http://kinemage.biochem.duke.edu

MolProbity Ramachandran analysis

1SSN, model 20

68.7% (92/134) of all residues were in favored (98%) regions.
94.0% (126/134) of all residues were in allowed (>99.8%) regions.
There were 8 outliers (phi, psi):
[20] 11 LYS (42.6, -91.1)
[20] 74 LYS (100.7, 37.1)
[20] 75 GLU (62.2, -74.4)
[20] 78 VAL (56.2, 76.6)
[20] 105 PRO (-78.7, -109.7)
[20] 114 PRO (-76.0, -98.2)
[20] 118 GLU (74.1, -82.0)
[20] 123 PRO (-69.2, -90.9)

http://kinemage.biochem.duke.edu