

BT305 LAB 5

Name: Aditya Jindal

Roll No.: 210106004

1)

Total relative Solvent Accessible Surface Area(SASA):

Alpha helix = 1712.39

Beta sheet = 2669.05

Protein G = 3712.8

Trpcage = 1859.4

2)

Average per residue solvent accessible surface area:

Alpha helix = 122.31

Beta sheet = 121.32

Protein G = 66.3

Trpcage = 93.0

3)

Per-residue solvent accessible surface area gives a measure of how much each residue in the protein is exposed to the solvent on average.

Protein G < Trpcage < Beta sheet < Alpha helix

4) If we change the probe radius from 1.4 to 1.0:

Absolute SASA values:

Alpha helix = 1627.27

Beta sheet = 2529.59

Protein G = 3735.83

Trpcage = 1759.20

Relative SASA values:

Alpha helix = 0.95

Beta sheet = 0.94

Protein G = 1

Trpcage = 0.94

5.) In both cases trp is buried as it is a hydrophobic residue, so it is less exposed to the solvent.