

Structural Bioinformatics 2003-04 Semester B

Assignment 1.

Feb 22

Investigate protein with PDB code 1dol.

1. Classify the protein according to SCOP database.
2. Write a protein diagram of the secondary structure elements. For example: 10-loop-20-helix-30-loop-35-strand-45-loop-50
3. In addition provide the lengths (in Angstroms) of alpha helices and beta-strands.
4. Draw a diagram of the beta-sheet topology.
5. Draw *aspartic* amino acid with residue id 54. Specify its atoms. Which atoms belong to the backbone chain and which atoms belong to the side chain?

Rasmol installed on Linux:

```
/home/silly6/mol/utils/Rasmol/rasmol_16BIT  
/home/silly6/mol/utils/Rasmol/rasmol_32BIT
```

Links:

<http://www.umass.edu/microbio/rasmol/distrib/rasman.htm>
<http://www.umass.edu/microbio/rasmol/seleccmd.htm>