

Answer:

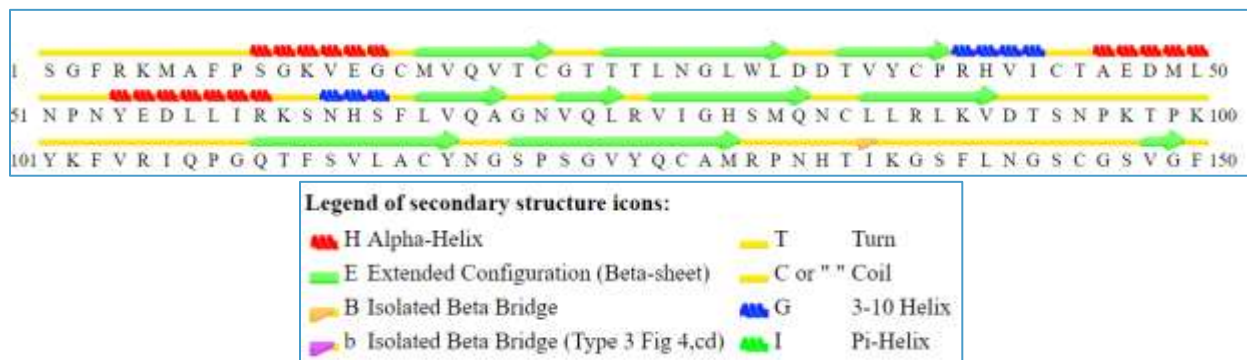
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1  SGFRKMAFP SGKVEGCMVQVTCGTTTLNGLWLD DTVYCPRHVICTAEDML 50
   TTTT      HHHHHH EEEEEETEEEEEEEEETEEEEEGGGG HHHHH

51 NPNYEDLLIRKSNHSFLVQAGNVQLRVIGHSMQNCLLR LKVDTSNPKTPK 100
   HHHHHHH GGG EEEETEEE EEEEEETEEEEEEEE TTTT

101 YKFVRIQPGQTFSVLACYNGSPSGVYQCAMPNHTIKGSFLNGSCGSGVGF 150
     TTTEEEEEEEEEETEEEEEEEEETTTT B TTTTTEEE
  
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Or



If this output has been shown and a comparison of residues is there, give 10 marks.

If only output has been shown, give 6 marks.

b) Comment on the differences observed with proper reasoning.

(10 marks)

Answer: Give marks if they have talked about the use of structural information (like hydrogen bonds, torsional angles) in Stride, and that there are many different types of secondary structural elements and not only helices, strands and turns in general.

Chou and Fasman parameters to be used for the prediction are as following:

Residue	P α	Residue	P β
Glu	1.53	Met	1.67
Ala	1.45	Val	1.65
Leu	1.34	Ile	1.60
His	1.24	Cys	1.30
Met	1.20	Tyr	1.29
Gln	1.17	Phe	1.28
Trp	1.14	Gln	1.23
Val	1.14	Leu	1.22
Phe	1.12	Thr	1.20
Lys	1.07	Trp	1.19
Ile	1.00	Ala	0.97
Asp	0.98	Arg	0.90
Thr	0.82	Gly	0.81
Ser	0.79	Asp	0.80
Arg	0.79	Lys	0.74
Cys	0.77	Ser	0.72
Asn	0.73	His	0.71
Tyr	0.61	Asn	0.65
Pro	0.59	Pro	0.62
Gly	0.53	Glu	0.26