

Create your own protein model

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DESCRIPTION

Would you like to create your own three-dimensional model of a protein using an A4 paper template?

You can do this by following the instructions to fold a triosephosphate isomerase (TIM) barrel. TIM barrels are some of the most common structural motifs found in proteins. In a TIM barrel eight α -helices and eight parallel β -strands form a solenoid that curves around to close on itself in a doughnut shape. Triosephosphate isomerase is a conserved metabolic enzyme that is involved in the production of chemical energy from sugar, a process called glycolysis.

MATERIALS

- Use the [TIM barrel folding template](#)

FOLDING TUTORIAL

1. Cut out protein along dotted lines
2. Curl blue helix behind arrows matching the numbers and sticking down.
3. Bend tube with red arrows facing inwards to create the barrel. Stick last tab to finish.