



Pre Lab

1. What is a protein?

Proteins are molecules made of amino acids.

2. Explain the relationship between genes and proteins.

Genes have instructions that can be used to make mRNA and proteins.

3. Describe why ribosomes are important in cells.

Ribosomes are the site of protein synthesis in cells.



Mid Lab

1. What does GFP stand for?

GFP stands for Green Fluorescent Protein

2. What is the shape of the GFP protein?

The GFP protein has a beta-can shape. It is similar to a cylinder with an open top and bottom.

3. Define the term hydrophobic.

Hydrophobic refers to a tendency to repel water.



Post Lab

1. Why did we spin the tubes in the centrifuge numerous times during the experiment?

We spun the tubes often to separate the GFP from other material in the tube.

2. What is the purpose of the HIC beads in the experiment?

The HIC beads allow us to “hold on to” the protein while we wash away any remaining debris in the tube.

3. Name a human protein produced using bacteria cells.

Human insulin is made using bacteria cells.