

Digestive Enzyme Worksheet

Data Table

Test Tube	Contents	Observations
1	Protein and biuret	
2	Protein, pepsin, and biuret	
3	Litmus-milk solution	
4	Litmus-milk and lipase solution	
5	Starch and iodine	
6	Starch, amylase, and iodine	
7	Starch, amylase, and Benedict's	
8	Glucose and Benedict's	

Post-Lab Questions

1. Compare and contrast the observations of the biuret test results for test tube 1 and test tube 2. Describe the evidence, if any, for the digestion of protein using pepsin.
2. The pepsin solution was prepared using 0.01 M hydrochloric acid in order to optimize the pepsin enzyme. Why was this necessary?
3. Compare and contrast the observations of the test results for test tube 3 and test tube 4. Describe the evidence, if any, for the digestion of butterfat using lipase.
4. Compare and contrast the iodine test results for starch (test tube 5) and starch/amylase (test tube 6). Explain the test results based on the activity of amylase.
5. Explain the results of the Benedict's test for the starch–amylase solution in test tube 7. What are the products of the digestion of starch by amylase?
6. Summarize the digestion of a sausage pizza served with a tall glass of milk. Indicate the enzymes responsible for digestion in the mouth, stomach, and small intestine.