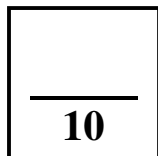


Science 9-Biology

Experiment 6-3—Testing for Proteins



Name _____

Due Date _____

Show Me Hand In *Correct and Hand In Again By* _____

Purpose: To test some foods for the presence of proteins

Materials:

- 7 test tubes in a rack
- Teacher's material for positive test results (albumin)
- Five food samples for testing – Listen carefully to the discussion before choosing your food. You want positive and negative results.

Procedure:

1. Obtain a test tube rack with 7 test tubes.
2. In test tube 1, place a pinch of albumin (This is known to contain protein.)
3. In test tube 2, put in about 1 mL of **water** (this is a control)
4. In the other 5 test tubes place **food samples**. Try for some positive and some negative results. Use small amounts. They have to be cleaned out later!
5. Clearly **label** each of the 7 test tubes.
6. **Write** the names of all the samples in the Data Table on the next page.
7. Obtain a dropper bottle with Biuret's solution from the teacher. **CAUTION:** Biuret's solution is **VERY CORROSIVE!** **Wear goggles** when you are using it and be careful not to get in on your skin or on your clothes! If any gets spilled, report it to the teacher immediately!
8. Add a few drops of Biuret's solution to each test tube.
9. Wait for about 10 minutes before making any observations.
10. Observe the test tube with the albumin in it (Test tube #1). The colour indicates a **positive** test for protein. Record this in the Data Table on the next page.
11. Record the colours in the remaining 6 test tubes in the Data Table on the next page.
12. A **purple** colour would indicate some protein is present. Determine whether each sample contains protein or not and write "Y" or "N" in the third column of the Data Table.
13. Try and remove the solid material in the test tubes and put it in the garbage.
14. Get a test tube brush and soap and carefully clean out all the test tubes and put them back.

Observations:

Data Table for Protein Test

#	Sample	Colour with Biuret's Solution	Protein Present? (Y/N)
1	Albumin (Positive Test)		Y
2	Water (Control)		N
3			
4			
5			
6			
7			

Questions:

- Which foods that you tested appeared to contain **protein**? _____

- Which foods that you tested contained **no detectable protein**? _____

- Describe a **positive test** for the presence of **protein** in food. _____

- What was the purpose of putting just **plain water** on one of the test tubes? _____

- List the three main **functions** of **proteins** in our body.
 - _____
 - _____
 - _____