

DNA Extraction Activity

From wheat germ

From buccal (cheek) cells

Materials:

Raw wheat germ
DNA homogenizing solution
50 ml test tube
cheesecloth
95% ethanol or isopropyl alcohol (ice cold)

Materials:

0.9 percent salt water
Paper cup
DNA homogenizing solution
50 ml test tube
95% ethanol or isopropyl alcohol (ice cold)

Procedures:

Put a gram of the wheat germ into a 50 ml test tube.
Add 25 ml water at 60 degrees C.
Add 2 ml homogenizing solution.
Put into 60 degree C water bath.
Mix gently every minute for 5 minutes with a straightened paper clip (you may also want to form a small hook at one end)...don't let it foam up...remove foam with pipet if it happens.
Filter solution through cheesecloth (3-4 layers).
Tilt the tube and **SLOWLY** pour 14 ml 95% ethanol or isopropyl alcohol down the side of the tube.
Cap and **VERY GENTLY** rock the tube back and forth a few times.
Use the paper clip and spool the DNA.

Procedures:

Swill 2 teaspoons (10 ml) salt water in your mouth for 30 seconds.
Spit the water into your cup. Pour this into a 50 ml test tube.
Add 2 ml homogenizing solution.
Put into 60 degree C water bath.
Mix gently every minute for 5 minutes with a straightened paper clip (you may also want to form a small hook at one end)...don't let it foam up...remove foam with pipet if it happens.
Tilt the tube and **SLOWLY** pour 14 ml 95% ethanol or isopropyl alcohol down the side of the tube.

Analysis:

In your analysis, please include the following:

- * Describe the steps you followed and why you did each of them.
- * Describe what DNA looks like (it's color, shape, and solubility).
- * If this had been DNA from your body, would you consent to its use in research? Why or why not?