CITIZEN SCIENCE
Bard College

DNA Extraction

The purpose of this protocol is to gather a number (in the millions!) of cells, break open the cells and nuclei, release the DNA, and cause it to stick together so you can see it!

Materials

Lysis buffer
Sterile 15 mL tube
Isopropanol

Protocol:

COLLECT AND BREAK OPEN CELLS

1. Each person in the group labels an empty sterile 15 ml tube with their name. Go to the water fountain located outside the laboratory and add 3 mL of water to the tube.

2. GENTLY chew on the inside of your cheek for 30 seconds. (**Do Not** draw blood.) This removes enough cells for you from which to extract DNA.

3. Pour the 3 ml of water in your mouth and rinse for 30 seconds (like mouthwash).

4. Spit water back into tube. Return to the laboratory.

5. Add 2 ml of Lysis buffer to your 15 ml tube containing “rinse” water.

6. Put in 50˚C waterbath for 10 minutes.

PRECIPITATION OF DNA

1. Gently add 10 ml of ice cold isopropanol to your 15ml tube.

2. Observe 2 layers (water and isopropanol).

3. Leave in rack for 5 minutes while DNA precipitates.

4. Turn over 5 times to mix contents.

5. Stringy white/clear material is your DNA!