

BANANA DNA EXTRACTION



SUPERNOVA
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EXTRACT DNA FROM A BANANA USING HOUSEHOLD INGREDIENTS!

MATERIALS

9

- 1 Banana
- 1 Plastic cup
- 1 tsp Salt
- 1/4 tsp Dish soap
- 1 Coffee filter
- 250 mL 70% isopropyl alcohol
- 1 Ziploc bag
- 1 Popsicle stick
- 1 Rubber band
- 100 mL Water

20-30 MINS

PROCEDURE

Step 1

Ensure that your isopropyl alcohol is cold by placing it in the fridge before the experiment

Step 2

Get 2 pieces of banana, roughly 2 inches in size, place them in the ziploc bag and seal it. Begin mashing the contents by squeezing the bag, being careful not to burst the bag. Add the water, salt, and dish soap into the bag as well and continue to mash the ingredients.

Step 3

Construct your filter using your rubber band, coffee filter, and plastic cup. Place the filter over the mouth of the cup and create a well. Use the rubber band to secure it in place.

Step 4

Pour the contents of the bag into the well on top of the cup, making sure not to overflow it. Allow the mixture to separate the liquid into the cup. Following this discard the filter and separated solids, being very careful to not let any solids fall into the liquid mixture

Step 5

Finally, add in your cold isopropyl alcohol until it fills the cup about 1/2 of the cup. Watch as the DNA strands form and use your popsicle stick to pick them up!

YOU HAVE NOW PRECIPITATED DNA!

PURPOSE & SCIENCE OUTCOMES

- Bananas are triploids, humans are diploids. This means bananas have 3 sets of chromosomes, which is why you can see their DNA!
- You precipitated the DNA, meaning you suspended the DNA using a detergent.
- Being able to see the structure of DNA is very important in biology & genetics for understanding genetic code!

ANY QUESTIONS? REACH OUT @SUPERNOVAATDAL