

# Isolating DNA from Fruit



## What you will need:

Fruit eg Banana, Strawberries, Kiwi fruit

Salt

Washing up liquid or liquid soap or shampoo (A supermarket own brand is perfect. The cheaper the better, as expensive brands have a lot of additives that interfere with the extraction)

Knife

Kitchen blender/liquidiser (or chop the fruit into small pieces by hand).

Set of Measuring Spoons.

Small Bowl or cup

jar (or other wide mouthed, lidded container).

Container of ice.

Methylated Spirits or isopropyl rubbing alcohol

Coffee Filter Papers

## What to do:

·Put the bottle of alcohol in the ice, to cool it down.

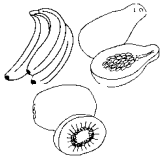
·Add 2 teaspoon (10mL) of shampoo to a small cup or small container with a lid, add 2-3 pinches of salt and 4 teaspoons (20mL) of water. Mix with a spoon. Try not to make bubbles

·Peel fruit and coarsely chop it into small pieces (20 seconds) in a blender (or by hand) with the same volume of water eg one kiwi fruit needs 100mL of water.

·Add 4 teaspoons (20mL) of the fruit puree to the shampoo/salt solution. Mix gently trying not to create too much foam- so as not to break the long DNA into small pieces.

Hint: the best way to do this is put the lid on tight and carefully tip the container upside down several times,

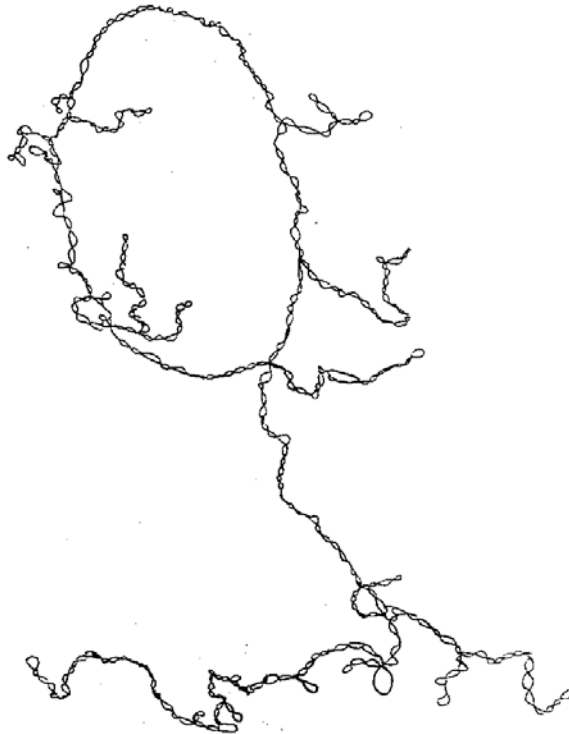




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- Put the coffee filter over a cup, pour the fruit/shampoo mix into the filter, and catch the liquid that runs through into the cup
- Add 1teaspoon (5mL) ice-cold methylated spirits or isopropyl rubbing alcohol to a small clear container
- Carefully add 1 teaspoon (5mL) of the filtered liquid to the alcohol, keep the container still, do not shake.
- Almost immediately you should see a fluffy white layer beginning to form at the boundary between the two liquids. This is the DNA that you have extracted from your fruit. After a few minutes the DNA will probably float to the surface of the alcohol.
- It may be possible to scoop the DNA out of the liquid by using a loop of wire (such as a paper clip) or a tooth pick.



Super Coiled DNA

