

DNA from kiwifruit

(do this with supervision from an adult, read all the instructions before use)

DNA is the stuff of life that contains the genetic code. Kiwifruit is a good material for extracting DNA as it contains enzymes that digest proteins. These enzymes aid the release of DNA. You can also try this experiment with strawberries and onions.

What You Need:

Materials:

- Kiwifruit
- Lysis solution
 - 12gm / 1 tbsp salt
 - 40ml / 3 tbsp detergent
 - 450ml / 1 pint water
 - 20ml isopropanol or rubbing alcohol(~>£4 for 100ml ebay)**

Equipment:

- Measuring spoons and cup
- Bowl
- Hot water
- Knife
- Fork
- Gloves(for adding the methanol)

1. Make the lysis solution:
 - Dissolve the salt into the water, then gently mix in the detergent, don't let it foam too much.
2. Remove the skin of the kiwifruit (there is not much DNA in this)
3. Cut kiwifruit flesh with a knife into small cubes (need to increase the surface area)
4. Put into bowl and mash with a fork for around a minute
5. Add 100ml of the lysis solution to the mashed kiwifruit
6. Put in a pyrex bowl over some hot/not boiling water 15min
7. Strain the mixture using a sieve, keeping the green liquid
8. Put 50 ml of the liquid into a small glass jar or shot glass.
9. Dribble the isopropanol down the edge.
10. Look for the floaty white blob. Depending on the purity, as well as DNA this will also contain some contaminating proteins
11. If you have a toothpick you may be able to pick out some of this stringy DNA

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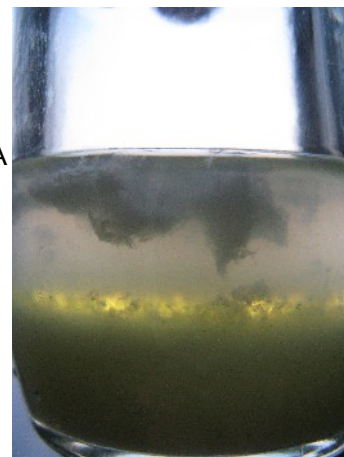
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Kiwi DNA extraction using iso-propanol/rubbing Alcohol.

Safety:

Isopropanol is flammable.
Do not breathe in fumes.
Keep away from naked flames.
Clean up spills promptly, minimise contact with skin. Do not allow to get into eyes. Do not drink

BY-SA Brian Degger Tried and tested but follow instructions at own risk.

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