

DNA Extraction with Kiwi fruit



Equipment and Ingredients

- Freezer
- Funnel
- Coffee filter/ filter paper
- Measuring jug and measuring spoons
- Knife, peeler and chopping board
- Snap lock bag
- Bamboo skewer
- 2 water glasses (1 tall)
- Kiwi fruit (1 per person)
- Salt
- Water
- Methylated spirits
- Dishwashing liquid

Method

Preparation:

- Put your methylated spirits in the freezer.
- Line your funnel with filter paper and rest your funnel in your tall water glass.

Making your Extraction Mixture

1. Fill your measuring jug with $\frac{1}{3}$ cup of water.
2. Mix in $\frac{1}{2}$ teaspoon of salt and 3 tablespoons of dishwashing liquid. Leave your extraction mixture to one side.

Preparing your kiwi fruit

1. Peel your kiwi fruit and cut it up into small pieces.
2. Put your cut-up kiwi fruit into a snap lock bag. Remove all the air from the bag and then seal it.
3. Using your fingers, mash up the kiwi fruit inside the bag for 3 minutes.

Extracting the DNA

1. Put 3 teaspoons of your extraction mixture into the snap lock bag. Remove all the air from the bag and seal it.
2. Using your fingers, mix the kiwi fruit and your extraction mixture for 2 minutes.
3. Pour your kiwi fruit mixture onto the filter paper in the funnel.
4. Let the mixture drip into the tall glass for 5 minutes.
5. Fill $\frac{1}{3}$ of your other glass with methylated spirits.
6. After 5 minutes, slowly pour the methylated spirits into the glass with the kiwi fruit mixture. You will need to tilt your kiwi fruit glass as you pour so that you make a 2cm layer of methylated spirits on top of the fruit layer.
7. Leave the two layers for 5 minutes.
8. Study the mixture in your glass. Your DNA will look like a gooey white/clear stringy mess floating in the methylated spirits layer.
9. Using your bamboo skewer, scoop out some of the DNA.

Amazing work! You have just extracted DNA from a kiwi fruit!