Modified Promega Wizard Extraction for Barcoding Macrofungi V.1

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ABSTRACT

This protocol is best used when preparing macrofungal specimens for Sanger sequencing or as a secondary extraction protocol for ONT nanopore barcoding.

MATERIALS

Equipment:
- Tube Racks for 1.5uL eppi tubes
- Tweezers
- Pestles
- Heat Block
- Vortexer
- Centrifuge

Consumables:
- 1.5uL eppi tubes
- Molecular water
- 70% ethanol
- Kimwipes

Reagents:
- Nuclei Lysis Solution, 1000ml Promega Catalog #A7943
- Protein Precipitation Solution, 350ml Promega Catalog #A7953
- Isopropanol IBI Scientific

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Protocol status: Working
We use this protocol and it's working

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https://dx.doi.org/10.17504/protocols.io.rm7vzb3p4vx1/v1
1. Add 600 uL of Nuclei Lysis Solution, 1000ml Promega Catalog #A7943 to 1.5mL eppi tubes. One tube for each specimen you are planning an extraction for.

2. Place tissue from your specimens into each tube using tweezers. Utilize a piece about the size of a grain of rice. The tissue can be either fresh or dried. Label the tube with the appropriate number. Wipe the tweezers off with a Kimwipe or paper towel in between each specimen. These tubes can be stored at room temperature until they are ready to be used.

3. Grind the tissue in each tube using a sterile pestle.

4. Heat the tubes at 65 °C for 00:15:00.

5. Centrifuge the tubes for 00:03:00.

6. Transfer the supernatant (liquid on top) to a new 1.5mL eppi tube.

   Add 200 µL of Protein Precipitation Solution 350ml Promega Catalog #A7953 to the tube.

   Vortex the tube for 00:00:20.
Centrifuge the tube for 00:06:00.

7 Transfer the supernatant (liquid on top) to a new 1.5mL eppi tube.

Add 600 µL of 100% Isopropanol IBI Scientific to the tube. This precipitates the DNA.

Centrifuge the tube for 00:01:00. The DNA will now be in a pellet stuck to the bottom of the tube.

Discard the supernatant. It can just be poured out of the tube into a waste container.

8 Add 600 µL of 70% ethanol to the tube.

Centrifuge the tube for 00:01:00.

Discard the supernatant. It can just be poured directly out of the tube into a waste container.

Place the tube upside down on a Kimwipe for at least 00:15:00, or until all of the ethanol has evaporated from the tube. I usually leave the tube to dry overnight.

9 Add 30uL of molecular water to the tube.

Your DNA template is now ready for amplification.