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Marchantia genotyping (quick and dirty genomic DNA extraction)

Forked from Marchantia genotyping (quick and dirty genomic DNA extraction)

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1 Works for me dx.doi.org/10.17504/protocols.io.bcmwiu7e

OpenPlant Project

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ABSTRACT

This protocol allows for quick and dirty genomic DNA extraction. It can easily be used for genotyping with PCR. The quality of the genomic DNA extracted is not suitable for any other application.

It has been widely used in different plant species including Marchantia as in https://www.nature.com/articles/srep01532

MATERIALS

NAME	CATALOG #	VENDOR
KOD Hot Start DNA Polymerase	71086-3	Millipore Sigma

1 Take small pieces (3x3 mm) of thalli from individual plants and place in a 1.5 mL Eppendorf tube (A in Figure).

2 Add 100 µl of genotyping buffer,: 100 mM Tris-HCl pH 9.5, 1M KCl, 10 mM EDTA (B in Figure).

3 Crush with an autoclaved micro-pestle (C in Figure).

4 Place the tube(s) at 80 °C for 10 min.

5 Add 380 µL of sterile water to each tube (D in Figure).

6 Use 5 µl aliquot of the extract as a template for PCR using preferably the KOD Hot start polymerase.

We found KOD to be more reliable amplyfing fragments from a crude genomic DNA extract such as the one used here.

7 Check PCR products on a 1.5% (w/v) agarose gel.

8