

Plant DNA Preparation Kit

Genomic DNA purification from plant tissue

DNA Preparation Kit

Cat.-No.	Amount
PP-207S	100 preparations

For *in vitro* use only
Quality guaranteed for 12 months
Store at room temperature

Description

Plant DNA Preparation Kit is designed for convenient and fast isolation of genomic DNA from plant tissue. The solution based system minimizes DNA fragmentation that may be problematic in other spin-column/filtration based method. Because phenol or chloroform is not used it is safe and does not produce any harmful waste.

Expected yield

Yields of genomic DNA will vary from sample to sample depending on the amount, quality and type of material processed. An amount of approx. 0.25 µg purified DNA per preparation can be expected.

Kit contents

Cell Lysis Solution 1%
RNase A (before use, solve in 200 µl water to a final concentration of 4 mg/ml)
Protein Precipitation Solution
DNA Hydration Solution

To be provided by you

Isopropanol (2-propanol) >99%
Ethanol 80%
Microtubes 1.5 ml

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Preparation procedure

Before start, provide >99% Isopropanol (2-propanol) and 80% Ethanol (both not included in the kit). Solve the *RNase lyophilisate* in 800 µl dd-water. *RNase A Solution* should be stored at 4°C.

1. Sample collection and Handling

- Fresh or frozen tissue may be finely ground with a mortar and pestle in liquid nitrogen prior to DNA isolation.
- Work quickly and keep tissue cold to minimize DNase activity.

2. Cell Lysis

- Transfer the finely ground tissue (10-30 mg) to a 1.5 ml microtube.
- Add 300 µl *Cell Lysis Solution* to the tissue.
- Incubate at 65°C for 60 min.
- Invert the tube occasionally during the incubation.

3. RNase Treatment

- Add 1.5 µl of *RNase A Solution* to the cell lysate.
- Mix the sample by inverting the tube 25 times and incubate at 37°C for 15-60 min.

4. Protein Precipitation

- Cool the sample to room temperature and add 100 µl of *Protein Precipitation Solution* to the cell lysate.
- Mix the solution well by vortexing.

- Centrifuge at 15,000 g for 3 min. (The precipitant should form a tight, green pellet. If the pellet is not tight, repeat mixing, incubate on ice for 10 minutes, and then centrifuge again.)

5. DNA Precipitation

- Transfer the DNA containing supernatant to a clean 1.5 ml microtube containing 300 µl of *Isopropanol >99%*.
- Mix the sample by inverting gently 50 times.
- Centrifuge at 15,000 g for 1 min. The DNA will be visible as a pellet that ranges in color from off-white to light green.
- Discard the supernatant and drain tube briefly on clean absorbent paper.
- Add 300 µl *Ethanol 80%* and invert tube several times to wash the DNA Pellet.
- Centrifuge at 15,000 g for 1 min.
- Discard the ethanol carefully.
- Air dry at room temperature for 10-15 min.

6. DNA Hydration

- Add 50-100 µl of *DNA Hydration Solution* to the dried DNA pellet.
- Hydrate the DNA by incubating sample at 65°C for 60 min.
- Store DNA at 4°C. For long time storage, place sample at -20°C or -80°C.