

Plant DNA Preparation Kit

Genomic DNA purification from plant tissue

DNA Preparation Kit

Cat.-No.	Amount
PP-207	400 preparations

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

Kit contents

Cell Lysis Solution

RNase A (before use solve in 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%

Tubes 15 ml

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.

Preparation procedure

Before start, provide >99% Isopropanol (2-propanol) and 80% Ethanol (both not included in the kit).

Solve the *RNase lyophilisate* in dd-water as indicated on the bottle. *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 (100-300 mg) to a 15 ml tube.
- Add 3 ml *Cell Lysis Solution* to the tissue.
- Incubate at 65°C for 60 min.
- Invert the tube occasionally to mix the solution.

3. RNase Treatment

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

4. Protein Precipitation

- Cool the sample to room temperature and add 1 ml of *Protein Precipitation Solution* to the cell lysate.
- Mix the solution well by vortexing.
- Centrifuge at 2,000 g for 10 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

- Pour the DNA containing supernatant into a clean 15 ml tube containing 3 ml of *Isopropanol >99%*.
- Mix the sample by inverting gently 50 times.
- Centrifuge at 2,000 g for 5 min. The DNA will be visible as a pellet that ranges in color from off-white to light green.
- Pour off supernatant and drain tube briefly on clean absorbent paper.
- Add 3 ml *Ethanol 80%* and invert tube several times to wash the DNA Pellet.
- Centrifuge at 2,000 g for 5 min.
- Pour off the ethanol carefully.
- Invert and drain the tube on clean absorbent paper and allow to air dry for 10-15 min.

6. DNA Hydration

- Add 200 µl of *DNA Hydration Solution* to the dried DNA pellet.
- Hydrate the DNA by incubating sample for 1 hour at 65°C.
- Store DNA at 4°C. For long time storage, place sample at -20°C or -80°C.