MagicPure® Plant Genomic DNA Kit

Please read the datasheet carefully prior to use

Cat. No. EC102

Storage: at room temperature (15°C-25°C) for one year.

Description

This kit uses magnetic beads with a unique separation function and a unique buffer system, which is suitable for the efficient extraction of genomic DNA from a variety of plant tissues of ≤100 mg. The extracted DNA is suitable for various routine experiments in molecular biology, including enzyme digestion, PCR, Southern Blot and other experiments. The whole process is safe and convenient, and the extracted genomic DNA has large fragments, high purity, stable and reliable quality, and is especially suitable for automated extraction of high-throughput workstations.

Highlights

- Fast extraction, high yield (up to 15 μg), and genomic DNA size of 20-50 kb.
- High throughput: This kit can be integrated with the automated instruments of pipetting method and magnetic rod method to carry out high throughput extraction experiments.
- High purity: The obtained DNA is of high purity and can be directly used in experiments such as chip detection and high-throughput sequencing and other experiments.

Kit Contents

Component	EC102-01 (50 rxns)
Lysis Buffer 38 (LB38)	25 ml
Binding Buffer 38 (BB38)	18 ml
Clean Buffer 38 (CB38)	20 ml
Wash Buffer 38 (WB38)	20 ml
Elution Buffer (EB)	10 ml
RNase A (10 mg/ml)	0.5 ml

Sample Requirements

Due to the variation among genomes of plant materials from different sources, the materials used should be young tissues or plant tissues frozen in liquid nitrogen.

Procedures

Before starting, add the corresponding volumes of 100% ethanol into CB and WB.

Component	EC102-01
Clean Buffer 38 (CB38)	20 ml
Wash Buffer 38 (WB38)	80 ml

1. Take about 100 mg of fresh plant tissue or about 30 mg of dry tissue. Add liquid nitrogen to fully grind.
2. Quickly transfer the ground powder to a microcentrifuge tube pre-filled with 450 μl LB38 and 10 μl RNase A. Invert and mix quickly. Place the microcentrifuge tube in a 70°C water bath for 10 minutes. Invert the microcentrifuge tube during the water bath to mix the samples several times.
3. Centrifuge at 12,000 rpm (~13,400 x g) for 4 minutes and transfer 300 μl of supernatant to a new microcentrifuge tube.
4. Add 300 μl of BB38, 300 μl of isopropanol and 15 μl of suspended Magnetic Plant Beads and mix well by vortexing.
5. Place at room temperature for 5 minutes.
6. Place the microcentrifuge tube on the magnetic stand for 1 minute, and carefully remove the liquid when the magnetic beads are completely pelleted.
7. Remove the microcentrifuge tube from the magnetic stand. Add 650 μl CB38 (please check whether absolute ethanol has been added before use), and mix well by vortexing for 30 sec.

8. Place the microcentrifuge tube on a magnetic stand for 30 sec. After the magnetic beads are completely pelleted, carefully remove the liquid.
9. Add 700 µl WB38 (please check whether absolute ethanol has been added before use), mix well by vortexing for 30 sec.
10. Place the microcentrifuge tube on a magnetic stand for 30 sec. After the magnetic beads are completely pelleted, carefully remove the liquid.
11. Repeat Step 9 and Step 10 once.
12. Place the microcentrifuge tube on a magnetic stand and dry at room temperature for 3-10 minutes.
13. Remove the microcentrifuge tube from the magnetic stand. Add 50-100 µl of elution buffer EB. Mix well by vortexing, and incubate at 65°C for 3-5 minutes.
14. Place the microcentrifuge tube on the magnetic stand for 1 minute. After the magnetic beads are completely pelleted, carefully transfer the DNA solution to a new microcentrifuge tube and store it under appropriate conditions.

Notes

• To ensure the quality of extracted DNA, use fresh blood sample and avoid repeated thawing and freezing.
• Beads must be mixed well before using.
• Use sterile tubes and pipette tips to avoid DNase contamination.

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