

DESCRIPTION

Plant DNA Magnetic Extraction employs magnetic particle-based purification technology to isolate and purify genomic DNA from various plant species. It is a simple and fast procedure with a bind-wash-elute process, does not need centrifugation or vacuum manifolds to remove the aqueous phase. The approach can allow selective binding of DNA in the presence of high concentrations of salt, DNA bound to a magnetic bead can be easily separated from the aqueous phase using a magnet. This method is ideal for automation of high throughput processing, as they eliminate the need for centrifugation and other time-consuming steps.

KEY FEATURES

- ❖ High efficiency: High yield rate.
- ❖ Simple and fast: Just binding-washing-elute.
- ❖ No organic solvent.

APPLICATIONS

Used for genomic DNA extraction from various plant species.

KIT CONTENTS

Name	Volume	Store
Lysis buffer	30 mL	4°C
Binding Buffer	20 mL	4°C
Washing Buffer*	20 mL	4°C
Elute Buffer	10 mL	4°C
Magnetic Bead	2.0 mL	4°C

Sufficient reagent for 100 samples

*: Add 80 mL absolute Ethanol to Washing Buffer.

STORAGE CONDITIONS

The kit is shipped on RT and stored at 4°C for long-term storage. Shelf life of 12 months after receipt.

PROCEDURES

1. Grind 10-50 mg of fresh or frozen plant tissue. Do not use more than 50 mg of plant tissue per reaction. Homogenize plant tissue samples using one of the following methods: **A.** Transfer plant tissue to a 2 ml tube containing stainless steel beads then cool the tube in liquid nitrogen. Homogenize the sample with a TissueLyser, Disruptor Genie or similar. **B.** Add the plant sample and liquid nitrogen to a mortar and grind thoroughly using a pestle. Transfer the powder to a new 1.5 ml tube.
2. Add 200 µl of Lysis Buffer and 5 µl of RNase A (10mg/ml) and mix well by vortex. Incubate the lysate at 60°C for 10 minutes. During incubation, invert the tube occasionally. Centrifuge the sample at 3,000 x g for 2 minutes to remove cell debris. Transfer 200 µl of supernatant to a new 1.5 ml tube.
3. Add 200 µl of Binding Buffer and 20 µL of mixed magnetic beads (Note: suspended the beads completely before use).
4. Incubate it at room temperature for 5 min. Put the tube on the magnetic separator, and remove the supernatant as possible (Note: do not disturb or aspirate the beads).
5. Add 400 µL of the washing buffer, and mix completely. (Note: Add the 80 mL absolute ethanol to the buffer before use), Put the tube on the magnetic separator, and remove the supernatant.
6. Follow the previous steps to wash again.
7. Add 50 µL Elution Buffer and gently resuspend the beads and place them in a 70 °C bath for 15 minutes. Note: Resuspend the beads every 2 minutes.
8. Carefully transfer the supernatant containing the genomic DNA to a clean centrifuge tube and store at -20 °C.

RELATED PRODUCTS

TBS42025: 4-in-One Aspergillus qPCR for Flavus, Fumigatus, Niger and Terreus

TBS42026: O157 H7 E. Coli qPCR

TBS42029: STEC and Samonella Multiple qPCR

TBS42030: Mycoplasma Detection qPCR

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