Column-Pure Plant DNA Extraction Kit

Cat. No. D519

Store Proteinase K at 4°C for up to 1 year or at -20°C for long term storage.
Store all other components at 18-25°C.

Product Description

abm's Column-Pure Plant DNA Extraction Kit is a rapid and efficient method for the isolation and purification of total DNA from plant and plant-derived food samples. The silica spin column technology allows for recovery of high quality nucleic acids from fresh, preserved or frozen samples. The kit can be used in downstream applications such as PCR and sequencing based detection of GMO-DNA and food related pathogens.

Product Component	Quantity
Plant Lysis Buffer	50 ml
Binding Buffer	50 ml
Wash Buffer 1	50 ml
Wash Buffer 2 (Concentrate)	20 ml
Elution Buffer	10 ml
Proteinase K	525 µl
Spin Columns & Collection Tubes	50

Protocol

Perform all centrifugation steps at 12,000 rpm unless stated otherwise.

1. Add 80 ml of 95-100% Ethanol to Wash Buffer 2 bottle.
2. Weigh 100-200 mg of sample into a mortar containing liquid nitrogen. Grind sample into a powder using a pestle. Transfer powdered sample into a DNase-free 2.0 ml microcentrifuge tube. Alternatively, weigh 100-200 mg of sample into a 2.0 ml microcentrifuge tube. Flash freeze using a dry ice and ethanol bath. Use a pestle to grind the sample into a powder.
3. Add 700 µl of Plant Lysis Buffer and 10 µl of Proteinase K to the powdered sample, mix by pipette. Heat sample in a water bath at 55°C for 30 min.
4. Centrifuge for 5 min.
5. Carefully transfer 450 µl of clarified supernatant into a sterile 1.5 ml microcentrifuge tube.
6. Add 650 µl of Binding Buffer to the microcentrifuge tube and vortex. Next add 350 µl of 95-100% Ethanol and vortex.
7. Apply 700 µl of sample mixture to a Spin Column and centrifuge for 1 min. Discard flow-through. Apply the remaining sample mixture to Spin Column and repeat.
8. Add 700 µl of Wash Buffer 1 to Spin Column and centrifuge for 1 min. Discard flow-through.
9. Add 500 µl of Wash Buffer 2 to Spin Column and centrifuge for 1 min. Discard flow-through. Repeat Step 9.
10. Centrifuge Spin Column empty for 2 min to remove residual ethanol.
11. Transfer Spin Column to a sterile 1.5 ml microcentrifuge tube and discard the Collection Tube. Add 50 µl of Elution Buffer to the center of Spin Column. Centrifuge for 1 min. Store purified DNA at -20°C.

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