Plant Genomic DNA Extraction Kit

Cat No.: EXD0206

Package: 50T/100T

Storage: Store in dry and room temperate condition(15℃-25℃), re-test period for 12 months. Storage at 2℃-8℃for longer. RNase A will be shipped as an accessory, please store at -20℃ after receiving it.

Kit Contents：

Component	50T	100T
RNase A	1ml	1ml×2
β-Mercaptoethanol	300μl	600μl
Solution PA	20ml	40ml
Solution PB	7ml	14ml
Solution PC	30ml	60ml
Washing Buffer	15ml	15ml×2
Elution Buffer	15ml	30ml
Adsorption column	50pcs	100pcs
Collection tube	50pcs	100pcs
Manual	1pcs	1pcs

Product Description

The kit adopts centrifugal adsorption column which can bind with DNA specificly and unique buffer system to extract the genomic DNA from tissues and cells. The silica matrix material in the adsorption column is a new type of material that absorb DNA efficiently and specificly, remove other organic compounds maximumly in impurity protein and cell.

Extracted genomic DNA fragments are large, high purity, stable and reliable, which can be used in a variety of routine operations, including enzyme digestion, PCR, library construction, southern Blotting, etc.

Protocol

Note：Please add Absolute Ethanol to the Washing Buffer before use. Please refer to the label on the bottle for the added volume. Unless otherwise specified, all centrifugation steps are centrifuged at room temperature using a benchtop centrifuge.

1. Plant tissue pretreatment: Take fresh plant tissue (≤100mg) or dry weight tissue (≤20mg) and fully ground to fine powder with liquid nitrogen.
2. Add 400μl Solution PA, 20μl RNase A (10mg/ml) and 5μl β-Mercaptoethanol into the centrifuge tube, transfer the grinding plant tissue powder to this centrifuge tube quickly. Reverse and mix thoroughly, incubate at room temperature for 10min.

3. Add 140μl Solution PB, reverse and mix thoroughly, centrifuge at 12000rpm for 10min. Transfer the supernatant to a new centrifuge tube (400-500μl). Note that do not bring the sediment to the tube.
4. Add solution PC into tube with same volume as supernatant, reverse and mix thoroughly and then add same volume of absolute ethanol. If floccule appears, blow the floccule off with pipette and add it to adsorption column together. Centrifuge at 12000rpm for 5min, discard the flow-through liquid.

   Note: we can do twice if we can not finish it once, if the adsorption column is green or blocked during centrifuge, add 600μl absolute ethanol to the adsorption column and extending the time of centrifuge.
5. Add 600μl Washing Buffer to the adsorption column (please check absolute ethanol has been added), centrifuge at 12000rpm for 1min, discard the flow-through liquid., put the adsorption column back to collection tube.
6. Add 600μl Washing Buffer to the adsorption column, centrifuge at 12000rpm for 1min, discard the flow-through liquid, put the adsorption column back to collection tube, centrifuge at 12000rpm for 2min.
7. Incubate at room temperature or 50℃ to dry the column. It is critical for removing Ethanol from the column.
8. Put the adsorption column into a clean centrifuge tube, drop 50μl-200μl Elution Buffer which is preheated at 65℃ in water bath to the center of adsorption column. Place at room temperature for 1-5min, centrifuge at 12000rpm for 2min to get the high purity plant genomic DNA.
9. In order to increase DNA concentration, add the liquid in adsorption column again, incubate at room temperature for 2min, centrifuge at 12000rpm for 2min.

Note

1. It's better to choose fresh and tender plant samples. This kit is not suitable for polysaccharide polyphenols plant tissue, please choose this kit: D1505 Polysaccharide Polyphenols Plant Genomic DNA Extraction Kit.
2. If the precipitation appears, dissolve at 65℃ water bath please, which had not affect on using.
3. The volume of the elution buffer can not less than 50 μl, obtained DNA should be stored at -20℃.