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Polysaccharide and Polyphenol Plant Genome Extraction Kit

Cat: D1505
Size: 50T
Storage: The kit can be stored under dry conditions at room temperature (15-25℃) for 12 months, and can be stored at 2-8℃ for longer storage. RNase A needs to be stored at -20℃.

Product content

Name	50T
RNase A	1ml×2
Solution A	25ml
Solution B	12.5ml
Deproteinized liquid	18ml
Rinsing solution	15ml
Eluent	15ml
Filter column	50
Adsorption column	50
Collecting tube	50

Product introduction:

The kit adopts a centrifugal adsorption column specifically binding to DNA and a unique buffer system, which can separate and purify high-quality genomic DNA from a variety of plant tissues. A unique precipitation solution can precipitate and remove proteins, polysaccharides and phenols in plant samples of polysaccharides and polyphenols. The extracted genomic DNA has high purity and stable and reliable quality. The genomic DNA purified by this kit is suitable for a variety of routine operations, including restriction endonuclease digestion, PCR, library construction, Southern hybridization, chip detection, high-throughput sequencing and other experiments.

Operating instructions (for reference only):

Before use, add anhydrous ethyl alcohol to the rinse solution and deproteinized solution. Please refer to the label on the bottle body to add volume. All centrifugation steps are such that the center of the off-machine room is centrifuged at room temperature using a desktop centrifuge.

1. Plant tissue pretreatment: take fresh plant tissue, remove leaf vein and add liquid nitrogen to grind fully, weigh plant fresh tissue about 200 mg or dry weight tissue about 40 mg.
2. The ground plant tissue powder was quickly transferred to a centrifuge tube pre-loaded with 500 μL

solution An and 25 μL RNaseA (10 mg/ml), fully inverted and mixed, 20 min in a water bath at 65 ℃, and the centrifuge tube was reversed to mix the sample several times during the water bath.

Note: if the solution is sticky after cracking, the amount of solution A can be increased appropriately, and the amount of buffer B can be increased in step 3.

3. Add 250 μL solution B (shake well before solution B is used), mix well, rotate and oscillate for 1 min, centrifuge 5min at 12000 rpm, transfer the supernatant to the filter column (the filter column is placed in the collection tube), then 12000 rpm centrifuge 1 min, transfer the filtrate to a new centrifuge tube (approx. 600-700 μL)
4. Add anhydrous ethyl alcohol of the same volume as the supernatant. If flocs appear at this time, the flocs will be blown away and then added to the adsorption column together. 12000 rpm centrifugation 5 min, the waste liquid can be added twice at one time. Note: if the adsorption column membrane is green or there is blockage during centrifugation, 600 μL anhydrous ethanol can be added to the adsorption column and the centrifugation time can be extended appropriately.
5. Add 550 μL deproteinized solution to the adsorption column (please check whether anhydrous ethanol has been added before use), centrifuge 1min with 12000 rpm, pour out the waste liquid, and put the adsorption column into the collection tube.
6. Add 700 μL rinsing solution to the adsorption column (please check whether anhydrous ethanol has been added before use), centrifuge 1min with 12000 rpm, pour out the waste liquid, and put the adsorption column into the collection tube.
7. Repeat step 6.
8. The adsorption column was placed in the recovery collector, 12000 rpm centrifuged 2 min, the collection tube was discarded, and then the adsorption column was transferred to a new centrifugal tube and dried at room temperature for 5-10 min. Note: ethanol residue will inhibit the subsequent enzyme reaction, so make sure the ethanol volatilizes clean when drying. But do not dry for too long, lest it is difficult to elute DNA.
9. 50-200 μL elution buffer was added to the adsorption column and centrifuged 2 min was placed at room temperature for 3-5 min. the solution was collected into the centrifuge tube.
10. (Optional)The eluent obtained by centrifugation is then added to the adsorption column and placed at room temperature for 2 min 12000 rpm centrifugation 2 min.

Notes：

1. Fresh and tender samples should be selected as far as possible to avoid repeated freezing and thawing, otherwise the extraction efficiency and quality of DNA will be affected.
2. If the reagent in the kit precipitates, it can be melted in a water bath at 65 ℃ without affecting its use.
3. The volume of elution buffer should not be less than 50 μL. DNA products should be stored at-20 ℃.
4. The degree of grinding of plant tissue affects the efficiency of DNA extraction, so the tissue must be fully ground with liquid nitrogen.