V02

Polysaccharide polyphenol plant genome DNA extraction kit

Cat: D1505
Package: 50T
Storage: RT, Valid for 1 year (RNase A is shipped as an attachment and stored at -20℃).

Product composition:

Kit composition	50T	Storage
RNase A	100μL×2	-20℃
Solution A	25mL	RT
Solution B	12.5mL	RT
Deproteinizing solution	18mL	RT
Bleaching solution	15mL	RT
Eluent	15mL	RT
Filter column	50	
Adsorption column	50	
Collecting tube	50	
Specification	1	

Notes:

1. Add anhydrous ethanol to the bleaching solution and the protein removing solution before use. Please refer to the label on the bottle to add the volume (12mL anhydrous ethanol should be added to each bottle of the protein removing solution and 45mL anhydrous ethanol should be added to each bottle of the bleaching solution).
2. All centrifugation steps are performed using a table centrifuge at room temperature.

Product description:

This kit uses a centrifuge adsorption column specifically bound to DNA and a unique buffer system, which can separate and purify high-quality genomic DNA from a variety of plant tissues. The unique precipitation solution can precipitate and remove impurities such as proteins, polysaccharides and phenols from polysaccharide polyphenol plant samples. The extracted genomic DNA was of high purity and stable quality. Genomic DNA purified using this kit is suitable for a variety of routine operations, including enzyme digestion, PCR, library construction, Southern hybridization, chip detection, high-throughput sequencing and other experiments.

Operation steps: (for reference only)

1. Plant tissue pretreatment: Take fresh plant tissue, remove leaf veins and add liquid nitrogen to fully grind, weigh fresh plant tissue about 200mg or dry weight tissue about 40mg.
2. The ground plant tissue powder was quickly transferred to A centrifuge tube pre-filled with 500μL solution A and 4μL RNase A, thoroughly reversed and mixed, and then bathed in water at 65℃ for 20min. During the water bath, the centrifuge tube was reversed to mix the sample several times.

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[Note]

If the solution is thick 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 250μL solution B (shake the solution well before use), invert and mix thoroughly, vortex for 1min, centrifuge at 12000rpm for 5min, transfer the supernatant to the filter column (the filter column is placed in the collection tube), and then centrifuge at 12000rpm for 1min, transfer the filtrate to the new centrifugal tube (about 600-700μL).
4. Add anhydrous ethanol with the same volume as the supernatant. At this time, if flocculent appears, blow the flocculent and add it together into the adsorption column, centrifuge at 12000rpm for 5min, and discard the waste liquid.

[Note]

If the adsorption column film is green or there is blockage in centrifugation, 600μL of anhydrous ethanol can be added to the adsorption column and the centrifugation time can be extended appropriately.

5. Add 550μL of deproteinizing solution into the adsorption column (please check whether anhydrous ethanol has been added before use), centrifuge at 12000rpm for 1min, pour away the waste liquid, and put the adsorption column into the collection tube.
6. Add 700μL bleach solution to the adsorption column (check whether anhydrous ethanol has been added before use), centrifuge at 12000rpm for 1min, dump the waste liquid, and put the adsorption column into the collection tube.
7. Repeat Step 6.
8. Put the adsorption column back into the collection tube, centrifuge at 12000rpm for 2min, discard the collection tube, then transfer the adsorption column to the new centrifuge tube and dry at room temperature for 5-10min.

[Note]

Ethanol residue will inhibit subsequent enzyme reactions, so make sure that the ethanol evaporates cleanly when drying. But don't dry it for too long, so it's hard to wash out the DNA.

9. Add 50-200μL eluting buffer into the adsorption column, place at room temperature for 3-5min, centrifuge at 12000rpm for 2min, and collect the solution into the centrifuge tube.
10. (Optional) The eluent obtained by centrifugation was added to the adsorption column, placed at room temperature for 2min, and centrifuged at 12000rpm for 2min.

Notes:

1. Tissue should be as fresh and tender as possible to avoid repeated freezing and thawing of samples, otherwise it will affect the efficiency and quality of DNA extraction.
2. If the reagent in the kit is precipitated, it can be melted in a 65℃ water bath without affecting the use.
3. The volume of eluting buffer should not be less than 50μL, and 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.