

## *PlantZol*

Please carefully read this manual prior to use

Cat. No. EE141

Storage: at room temperature (15-25°C) for one year

### Description

*PlantZol* provides an easy and fast method to isolate high quality plant genomic DNA. Plant tissue is disrupted by grinding in liquid nitrogen. DNA is released with detergent. DNA is separated from other components by centrifugation and precipitated with isopropanol. *PlantZol* is suitable to isolate DNA from plants rich in polysaccharide and polyphenol.

- Isolated DNA is suitable for PCR, restriction enzyme digestion and Southern blot.

### Procedures

Reagents provided by customers: RNase A (10 mg/ml), phenol-chloroform, isopropanol, 70% ethanol and TE

1. Grind 100 mg fresh plant tissue (or 20 mg hard plant tissue) in liquid nitrogen until a fine, homogenous powder is obtained. Transfer the powder to a clean microcentrifuge tube.
2. Add 400  $\mu$ l of *PlantZol*, mix thoroughly by vortexing to let sample completely suspend.
3. Add 7.5  $\mu$ l of RNase A to above lysate and mix thoroughly.
4. Incubate at 55°C for 15 minutes.
5. Add equal volume (equal to the lysate) of phenol-chloroform into the lysate and mix thoroughly by vortexing. Centrifuge at 12,000 $\times$ g for 5 minutes.
6. Gently transfer the upper aqueous phase to a clean microcentrifuge tube. Add equal volume of isopropanol and mix thoroughly by inverting (filamentous or clustered genomic DNA may form at this stage).
7. Centrifuge at 12,000 $\times$ g for 5 minutes. Carefully remove the supernatant.
8. Add 500  $\mu$ l of 70% ethanol, and vortex for 5 seconds. Centrifuge at 12,000 $\times$ g for 5 minutes and carefully remove the supernatant.
9. Centrifuge for 1-2 minutes to remove the residual.
10. Air-dry the DNA pellets until all the liquid completely evaporates. Dissolve DNA by adding 50-200  $\mu$ l of TE to it and incubate for 10 minutes to 1 hour at 65°C, gently tapping for several times to facilitate dissolving.

### Notes

- It is important to mix well after adding phenol-chloroform.
- The DNA yield from fruit and rhizome tissue is less than that from leaf tissue, we suggest to use less TE if concentrated DNA is needed.

FOR RESEARCH USE ONLY