EasyPure® Universal Plant Genomic DNA Kit

Please read the datasheet carefully prior to use.

Cat. No. EE112

Version No. Version 1.0

Storage at room temperature (15°C-25°C) in a dry place for one year.

Description

The kit is designed for the isolation of genomic DNA from various fresh and dried plant samples, including plant samples rich in polysaccharides and polyphenols. The kit is based on unique extraction system and membrane technology to specifically remove secondary metabolites such as polysaccharides, polyphenols, and lipids in samples, without the need for toxic reagents such as phenol and chloroform. Purified DNA with high quality and good stability can be used for enzyme digestion, PCR, Southern Blot, NGS, etc.

Features

- Wide range of applications: applicable to various plant tissues, especially those rich in polysaccharides, polyphenols or starch
- Fast operation: high-quality genomic DNA can be extracted in less than 1 hour
- Safe and low toxicity: no toxic organic reagents such as phenol and chloroform
- High purity: the unique technology can efficiently remove impurities such as pigments, polyphenols and polysaccharides in the sample

Kit Contents

Component	EE112-01 (50 rxns)	EE112-02 (200 rxns)
Lysis Buffer 49 (LB49)	42 ml	162 ml
Precipitation Buffer 49 (PB49)	12 ml	42 ml
RNase A	2×1.1 ml	2×4.2 ml
Clean Buffer 49 (CB49)	13 ml	52 ml
Wash Buffer 49 (WB49)	12 ml	2×22 ml
Elution Buffer（EB)	15 ml	60 ml
Filtration Columns with Collection Tubes	50	200
Genomic Spin Column with Collection Tubes	50	200

Procedures

Add the corresponding volume of absolute ethanol (self-prepared) to CB49 and WB49 according to the table below before use.

Component	EE112-01 (50 rxns)	EE112-02 (200 rxns)
Clean Buffer 49 (CB49)	13 ml	52 ml
Wash Buffer 49 (WB49)	48 ml	2×88 ml

1. Weigh about 100 mg of fresh plant tissue or 30 mg of dry weight tissue ground with liquid nitrogen into a 1.5 ml sterile centrifuge tube (self-prepared).
   * For samples with high water content, such as apples, tomatoes and other fruits, the initial amount can be increased appropriately.
2. Add 800 µl Lysis Buffer 49 (LB49) and 40 µl RNase A, mix thoroughly, and incubate in a 65°C water bath for 10-15 minutes.
3. Add 200 µl PB49, mix thoroughly by vortexing. Centrifuge at 13,500×g for 5 minutes. Transfer 700 µl supernatant to Filtration Columns with Collection Tubes. Centrifuge at 13,500×g for 2 minutes. Collect flowthrough into 2 ml collection tubes.
   * There may be a little precipitate or impurities in the aspirated supernatant, which will not affect the downstream extraction.
   * If the solution is viscous after lysis, add PB49 and place in ice bath for 5 minutes before centrifuging.

4.Add 700 µl of absolute ethanol to the above 2 ml collection tube, mix up and down, flocculent precipitation may appear at this time.

5.Take all the above mixture and add it to the Genomic Spin Column with Collection Tubes twice, add 700 µl each time, centrifuge at 13,500×g for 1 minute, and discard the flowthrough.

6. Add 500 µl CB49, centrifuge at 13,500×g for 30 seconds, and discard the flowthrough (check whether absolute ethanol is added to CB49 before use).

7. Add 500 µl WB49, centrifuge at 13,500×g for 30 seconds, and discard the flowthrough (check whether absolute ethanol is added to WB49 before use).

8. Repeat step 7 once.

9. Centrifuge at 13,500×g for 2 minutes to completely remove residual WB49; place the spin column in a new 1.5 ml sterile centrifuge tube (self-prepared), and dry in a metal bath at 65°C for 3 minutes or at room temperature for 5 minutes .

10. Add 50-100 µl EB (recommended to preheat at 60°C~70°C) or deionized water (pH>7.0) to the center of the spin column, incubate at room temperature for 5 minutes, and centrifuge at 13,500×g for 1 minute to elute the DNA.

* To obtain more DNA, the solution after the first elution can be added back to the spin column for a second elution.

Notes

• Sample should be fresh or stored at -80°C without repeated freezing and thawing.

• The amount of sample should not be too much, otherwise more impurities will be produced, which will block the filter column and spin column and affect the extraction effect.

• Use sterile pipette tips and centrifuge tubes to avoid DNase contamination.

• If lysate appears precipitation, dissolve it in a 37°C water bath, and shake well before use.

• Reagents not included in the kit: absolute ethanol and 1.5 ml sterile centrifuge tube.

For research use only, not for clinical diagnosis.

Version number: V1.0-202306

Service telephone +86-10-57815020
Service email complaints@transgen.com