PureHelix™ *Genomic* DNA Prep Kit [Plants]

(Solution Type)

Kit Contents

PureHelix™ *Genomic* DNA Prep Kit [Plants]		
Cat. No.	**GSP100** **(100preps)**	**GSP400** **(400preps)**
Cell Lysis Solution	30ml	60ml x 2ea
Protein Precipitation Solution	10ml	40ml
DNA Hydration Solution	10ml	40ml
WB	11ml **(Add 44ml ethanol)**	44ml **(Add 176ml ethanol)**
RNase A (4mg/ml)	0.2ml (Dry)	0.8ml (Dry)
Instructions for Use	1ea	1ea

Description

PureHelix™ *Genomic* Prep Kit [Plants] is designed for high-yield and high-quality isolation of genomic DNA from plant tissues. This solution based system minimizes DNA fragmentation that may be problematic in spin-column/filtration based methods. Because phenol or chloroform is not used it is safe and does not produce any harmful waste. DNA purified with this kit is suitable for a variety of applications, including PCR amplification, digestion with restriction endonucleases and membrane hybridizations.

Applications

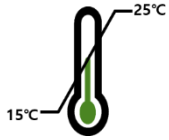
PCR, quantitative real-time PCR

Southern blot analysis

Genotyping

Discovery or validation of SNP/SSR markers

Storage



Room temperature

Shelf life

12 months

Quality Control

Each lot of **PureHelix™ *Genomic* Prep Kit [Plants]** was tested against predetermined specifications to ensure consistent product quality.

Protocol

Important things to do before starting

- Prepare **Isopropanol** (2-propanol) **(not included in this kit)**.
- Before using **WB**, add absolute ethanol according to the bottle label to obtain a working solution. You may use 80% ethanol, instead of WB. Ethanol does not supplied in this kit.
- **For 100 Prep Kit (GSP100)**
  Add **0.2 ml** of distilled water into the **RNase A tube** to make 4 mg/ml concentration, and then store at -20℃.
- **For 400 Prep Kit (GSP400)**
  Add **0.8 ml** of distilled water into the **RNase A tube** to make 4 mg/ml concentration, and then store at -20℃.

Cell Lysis

1. Add **300 µl** of **Cell Lysis Solution** to 10-30 mg of the finely ground tissue in a 1.5 ml microcentrifuge tube. Vortex vigorously for 30-60 sec.
   ※ We recommend grinding the tissue sample with liquid nitrogen. Immediately transfer the ground tissue into a 1.5 ml microcentrifuge tube cooled by liquid nitrogen.
2. Incubate at 65℃ for 60 min. Invert the tube occasionally during the incubation.

RNase Treatment

3. Add **1.5 µl** of **RNase A (4 mg/ml)** and mix the sample by inverting the tube 25 times.
4. Incubate at 37℃ for 15 min, and then cool the sample at room temperature.

Protein Precipitation

5. Add **100 µl** of **Protein Precipitation Solution,** and vortex briefly.
6. Place the tube on ice for 10 min, and centrifuge at 12,000 rpm for 3 min.
   ※ The precipitate will be a tight pellet. If the pellet is not tight, repeat this step.

DNA Precipitation

7. Transfer the supernatant to a clean 1.5 ml microcentrifuge tube containing **300 µl** of **Isopropanol** (2-propanol). Mix the sample by inverting gently 50 times.
8. Centrifuge at 12,000 rpm for 1 min. The DNA will be visible as a pellet. Discard the supernatant and drain the tube briefly on clean absorbent paper.

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9. Add **500 µl** of **WB (80% ethanol)** and invert the tube several times to wash the DNA Pellet.
10. Centrifuge at 12,000 rpm for 1 min. Discard the ethanol carefully and air dry at room temperature for 10 min.
    ※ **The DNA pellet is very loose at this point and care must be taken to avoid missing the pellet. Ethanol should be completely removed, but DNA is very difficult to redissolve when over-dried.**

DNA Hydration

11. Add **20-100 µl** of **DNA Hydration Solution** to the dried DNA pellet.
12. Hydrate the DNA by Incubating sample at 65℃ for 30 min. Store DNA at 4℃.
    ※ **For long time storage, Place the sample at -20 or -80℃.**

Products

Cat. No.	Products	Size
GSP100	PureHelix™ *Genomic* DNA Prep Kit [Plants] (Solution Type)	100preps
GSP400	PureHelix™ *Genomic* DNA Prep Kit [Plants] (Solution Type)	400preps

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