Cat. No. AEPDX-1004

For Research Use Only

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DNrich Plant Kit

Introduction

The **DNrich Plant Kit** is designed for DNA extraction from different sources of plants such as leaf or seed. The quality of extracted DNA can be varied, depending on the samples used. The kit is intended for downstream application of molecular biology.

DNrich Plant Kit components*	**Cat. No. AEPDX-1004-050**
A solution**	**25 ml**
B Solution	**15 ml**
C Solution	**15 ml**
Wash Solution (conc.) *	**15 ml**
Elution Buffer	**3 ml**
Manual	**1**

* 1.5 ml micro-centrifuge tube, molecular biology grade water, ethanol absolute and 70% ethanol are needed but are not included.
** Please refer to **A Solution** Preparation and **Wash Solution** before using this kit.

Caution

The components contain irritants. During operation, always wear a lab coat, disposable gloves, and protective goggles.

Reminder

Pre-set heather block at 56°C.
Prepare **A Solution** immediately prior to use.
Pre-warmed A Solution and Elution buffer at 56°C.

A Solution preparation

Add **22** ml of molecular biology grade water to **A Solution**, and shake it well.
Note: mark the check box on the bottle.
Note: With **1 M NaOH** adjust the pH to 8.
Note: For the best results, the prepared A Solution should be used immediately. Prepared A Solution can be stored for up to one month at 4°C.

Wash Solution 1 & 2 Preparation

Add **35 ml** molecular biology grade **absolute ethanol** to each **Wash Solution** before first use and check mark on the bottle.

PROTOCOL

Step 1: **Sample Preparation**

- Cut off **50 mg** (up to 200 mg) of plant tissue.
- **Grind** the sample to a fine powder and transfer it to a 1.5 ml micro-centrifuge tube.
  Note: Some plant samples need liquid nitrogen and/or washed and autoclaved sand to be ground sufficiently.

Step 2: **Lysis**

Note: Prepare **A Solution** immediately prior to use.

- Add **500 µl of pre-warmed A Solution** into the sample tube and mix by vortex.
- **Incubate at 56°C** for 90 minutes. During incubation, vortex vigorously the tube every 30 minutes.
  Note: Incubation time could be varied from 30 minutes to overnight for different plant samples.
- Add **300 µl of B Solution** and mix by vortex for 30 seconds.
- Keep at room temperature for 10 minutes, and invert every 5 minutes.
- Centrifuge for 15 minutes at **11500 g**.
- Carefully transfer about **300µl of supernatant** into a new 1.5 micro-centrifuge tube and do not disturb the phases.
  Note: The amount of supernatant phase varies.

Step 3: **DNA Precipitation**

- Add 300 **µl of C Solution** to sample tube and mix by **invert** for 15 times.
- Incubate the samples at **-20°C** for 30 minutes.
- Centrifuge at **12000 g** for 10 minutes.
- **Decant** the supernatant into waste.
  Note: While decanting, be careful not to lose the DNA pellet.

Step 4: **Wash**

- Add **500 µl of Wash Solution to** the sample tube, invert for 10 times and then centrifuge at **12000 g** for **10** minutes.
- **Decant** the supernatant into waste.
- Add **500 µl of Wash Solution to** the sample tube, invert for 10 times and then centrifuge at **12000 g** for **10** minutes.
- **Decant** the supernatant into waste, and let stand until dry.

Step 5: **DNA Elution**

- Add **50 µl of Elution buffer** to the sample tube.
- Allow to re-suspend the DNA for 5 minutes at 55°C, and then centrifuge at **8000 g** for 1 minute.
  Note: Store DNA at **-20°C**.