Cat. No. AFPDX-1052

For Research Use Only

Fast DNrich Plant Kit

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Introduction

The **Fast 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.

Fast DNrich Plant Kit components	**Cat. No. AFPDX -1052-050**
A solution*	**25 ml**
B Solution	**10 ml**
SE Solution	**15 ml**
Wash Buffer (conc.) *	**15 ml**
Elution Buffer	**3 ml**
Column	**50**
Manual	**1**

* Refer to reminder, **A Solution and Wash Buffer Preparation** before first use.

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.
Prepare **Wash Buffer** before first 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 two weeks at 4°C.

Wash Buffer Preparation

Add **35 ml** molecular biology grade **Absolute Ethanol** to **Wash Buffer** bottle before first use and mark the check box on it.

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PROTOCOL

Step a: **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 tube.
  Note: Some plant samples need liquid nitrogen to be ground sufficiently.

Step b: **Tissue Digestion & Lysis**

Note: Prepare **A Solution** before first use.

b1 Add **500** µl of pre-warmed **A Solution** into the sample tube and mix by vortex.

b2 Incubate at **56°C** until tissue are completely lysed (usually 30 to 120 minutes).
Note: During incubation time, vortex the sample tube every 10 minutes.

b3 Add **200** µl of **B Solution** and mix by vortex for **30** seconds and keep at **RT** for **10** minutes.

b4 Centrifuge at **11500** g for **5 minutes**.

b5 Carefully transfer about **300µl of supernatant** to a **new 1.5 ml** tube.

b6 Add **300µl** of **SE Solution** to the tube, invert for 5 times and keep at room temperature for **3** minutes and then transfer all the sample to a **spin column**.

b7 Centrifuge at **2000 g** for **2** minutes and **discard** the flow through.

Step c**: Washing**

c1 Add **500 µl** of **Wash Buffer** to the column, centrifuge at **8000 g** for **1** minutes and **discard** the flow through.

c2 **Repeat step c1**.

Step d: **Column Drying**

d1 Centrifuge at **8000 g** for **1** minute.

d2 **Discard** the flow through and place the column into a new **1.5 ml** microcentrifuge tube.

Step e: **DNA Elution**

e1 Add **50 µl** of **Elution Buffer** to the center of column and let stay at **RT** for **3** minutes.

e2 Centrifuge at **10000 g** for **2** minutes.
Note: Eluted DNA is ready for downstream analysis and should be stored at **-20°C.**

Short PROTOCOL

Step a: **Sample Preparation**

a1 Cut off **50 mg** (up to 200 mg) of plant tissue.

a2 **Grind** the sample to a fine powder and transfer it to a 1.5 ml tube.

Step b: **Tissue Digestion & Lysis**

Note: Prepare **A Solution** before first use.

b1 **Add 500** µl of pre-warmed **A Solution** into the sample tube and mix by vortex.

b2 **Incubate** at **56°C** until tissue are completely lysed (usually 30 to 120 minutes).

b3 Centrifuge at **11500 g** for **5 minutes**.

b4 Transfer **300 µl** of the supernatant into a **spin column**.

b5 Centrifuge at **2000 g** for **2** minutes and **discard** the flow through.

Step c**: Washing**

c1 Add **500 µl** of **Wash Buffer** to the column, centrifuge at **8000 g** for **1** minutes and **discard** the flow through.

c2 **Repeat step c1**.

Step d: **Column Drying**

d1 **Centrifuge** at **8000 g** for **1** minute.

d2 **Discard** the flow through and place the column into a **new 1.5 ml** microcentrifuge tube.

Step e: **DNA Elution**

e1 Add **50 µl** of **Elution Buffer** to the center of column and let stay at **RT** for **3** minutes.

e2 Centrifuge at **10000 g** for **2** minutes.

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