Yeastern Biotech Co., Ltd

Total RNA Kit (Plant)2.0

Product Use Limitation & Warranty

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Ver. Q0125

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Cat. No.
SYG308-001
FYG308-100
FYG308-300

Total RNA Kit (Plant)2.0

(SYG308-001/ FYG308-100/ FYG308-300) Store at RT/4 ℃ Ver. Q0125

Sample： 100 mg of Tissue **Yield**： Up to 30 µg

25 mg of dry plant Tissue

Contents

Items	SYG308-001 (4 preps)	FYG308-100 (100 preps)	FYG308-300 (300 preps)
PR Buffer	4 ml	110 ml	105 ml x3
W1 Buffer	2 ml	45 ml	125 ml
W2 Buffer	300 ul x2	15 ml	25 ml x2
Elution Buffer	1 ml	10 ml	30 ml
RZ Column	4 pcs	100 pcs	300 pcs
Collection Tube	4 pcs	100 pcs	300 pcs
User Manual	1	1	1

Buffer Preparation

- **Add ethanol (96-100%) to the W2 Buffer prior to first use.**

Buffer	SYG308-001 (4 preps)	FYG308-100 (100 preps)	FYG308-300 (300 preps)
W2 Buffer ethanol (96 ~ 100%)	300 ul x2 1.2 ml x2	15 ml 60 ml	25 ml x2 100 ml x2

Additional Requirements

1. ß - Mercaptoethanol
2. RNase-free microcentrifuge tubes
3. Isopropanol
4. ethanol **(96-100%)**

Important Notes

1. Buffer contains chaotropic salt is harmful and irritant agent. Wear gloves and lab coat when handling these buffers.
2. Use sterile, RNase-free pipet tips and microcentrifuge tubes. Wear a lab coat and disposable gloves to prevent RNase contamination.
3. Make sure the starting sample amount is under the limit.
4. Add ethanol (96- 100 %) to W2 Buffer when prior to the initial use.
5. All purification steps should be carried out at room temperature.
6. All centrifugation should be carried out in a table-top microcentrifuge at >12000 × g (10,000-14,000 rpm, depending on the rotor type).

Purification Protocols

Step 1. Sample preparation

a. Cut off 100 mg of fresh plant tissue or 25 mg of dry plant tissue.
b. Grind the sample under liquid nitrogen to a fine powder by using a mortar and pestle.

Step 2. Cell Lysis

a. Add 1 ml PR Buffer and 10 µl of ß - Mercaptoethanol to the sample in the mortar and grind the sample until it is completely dissolved.
b. Transfer the sample mixture to a RNase-free microcentrifuge tube and incubate at 75°C for 30 minutes. (Invert the tube every 10 minutes.)
c. Centrifuge at 2-8°C at 14,000 x g for 10 minutes and transfer the supernatant to a new microcentrifuge tube.
d. Add 1/2 volume of isopropanol to the sample and shake vigorously.
e. Place a RZ column in Collection Tube.

Step 3. RNA Binding

a. Transfer the sample mixture (up to 700 µl once) to RZ column and centrifuge 30 seconds at 14,000 x g.
b. Discard the flow-through and place RZ Column back in the Collection Tube.

Step 4. Wash

a. Add 400 µl W1 Buffer to RZ Column.
b. Centrifuge at 14,000 x g for 30 seconds.
c. Discard the flow-through and place RZ Column back in the Collection Tube.
d. Add 600 µl W2 Buffer (ethanol added) to RZ Column.
e. Centrifuge at 14,000 x g for 30 seconds.
f. Discard the flow-through and place RZ Column back in the Collection Tube.

Step 5. Dry column

a. Centrifuge at 14,000 x g for 2 minutes to dry the RZ column.

Step 6. Elution

a. Place RZ Column to a clean 1.5 ml microcentrifuge tube (not provided).
b. Add 50-90 µl of Elution Buffer into the center of the column matrix.
c. Stand at room temperature for 2 minutes.
d. Centrifuge at 14,000 x g for 2 minutes to elute purified RNA.

Step 7. Store RNA

a. Store the RNA fragment at -80°C.

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