MQ Plant RNA Extraction Kit

Cat No. PRE-M-001-50
Size: 50 Preparations

MOLEQULE-ON®

Components	Quantity
Buffer Rlysis PG	25 ml
Universal GT Solution*	18 ml
Universal NT Solution*	6 ml
RNase Free Water	5 ml
MQ Spin Column with 2ml Collection Tube	50

Preparations

* Universal GT Solution and Universal NT Solution are supplied in a concentrated form, before use; add 12 ml 96-100% ethanol to 18 ml concentrated universal GT solution and 24 ml 96-100% ethanol to 6 ml concentrated universal NT solution to make a work solution.

Description

Polysaccharides and polyphenols are components of plants, It is very difficult to remove after form insoluble compounds closely combining with RNA. MQ Plant RNA Extraction Kit is applicable to all kinds of plant samples RNA rapid extraction. Cracking liquid can effectively solve the difficult problem such as polyphenols easy oxidation, polysaccharide separation and nucleic acids compounds. RNA Purification using spin column is easy to operate, avoid ethanol rinse. Purified RNA is ready for most downstream applications such as RT-PCR, Northern Blotting, Poly A+ purification, nuclease protection and in vitro translation.

Features

- Fast. Using a rapid spin-column format, the entire procedure takes approx. 30 minutes.
- Versatile. Suitable for extraction of RNA from a wide range of specimens such as arabidopsis thaliana, tobacco, camphor and other samples.
- High Quality of RNA. Complete removal of contaminants such as genomic DNA, polysaccharides, polyphenols and other impurities. An OD260/OD280 ratio of purified RNA is generally > 1.9.

Storage

MQ Plant RNA Extraction Kit should be store at 2-8°C.

Materials and Equipment Required but Not Supplied

- Microcentrifuge capable of at least 12,000 × g.
- RNase-Free pipettes and pipette tips.
- Vortexer.
- RNase-Free Ethanol (96-100%).
- RNase-Free Microcentrifuge tubes (1.5 ml or 2 ml).

Before Starting

- Care must be taken when working with RNA.
- It is important to maintain an RNase-free environment, starting with RNA sample preparation and continue through purification and analysis. Use RNase free tubes, tips, gels.
- Wear gloves at all times.

Procedure

1. Add 450 µl Buffer Rlysis PG into a RNase-Free 1.5 ml centrifuge tube.

2. Grind 25~50mg plant tissue to fine powder in liquid nitrogen, transfer the powder to the 1.5ml RNase free microcentrifuge tube and mix by inverting immediately.

3. Incubate at room temperature for 5 minutes to make sure the cells are completely lysed.

4. Centrifuge at 12,000 x g for 5 minutes. Transfer the supernatant to a new RNase free 1.5ml microcentrifuge tube.

5. Add 1/2 volume of ethanol, mix by inverting the tube.

6. Transfer the solution to the MQ spin column, centrifuge at 12,000 × g for 30 sec at room temperature, discard the flow-through.

7. Add 0.5 ml of Universal GT Solution to the column, centrifuge at 12,000 × g for 30 sec at room temperature, discard the flow-through.

8. Add 0.5 ml of Universal NT Solution to the column, centrifuge at 12,000 × g for 30 sec at room temperature, discard the flow-through.

9. Centrifuge the empty column at 12,000 × g for additional 30 sec at room temperature.
Note: This step is very important to remove the residual ethanol thoroughly.

10. Place the column in a new RNase-Free 1.5 ml centrifuge tube.

11. Add 50 µl RNase-free Water. Keep at room temperature for 2 minutes. Centrifuge at 12,000 × g for 30 sec at room temperature.

12. Store RNA solution at -80°C.