RNA Transport

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OMEGA bio-tek

Innovations in nucleic acid isolation

Introduction

Sample Type

RNA Transport has been used extensively for room temperature storage of purified total RNA and poly(A) mRNA.

Assay Type

RNA stored in RNA Protection Tube is ready for use in the following applications:

- Quantitative RT-PCR
- Bioanalyzer analysis
- Agarose gel electrophoresis
- Reverse Transcription (RT)
- RT-PCR
- Microarray analysis
- cDNA synthesis

Shipping

RNA Transport provides the ideal format for the transport and shipping of RNA samples at ambient temperatures. Protected RNA can be shipped without the need for cold packs, dry ice, or styrofoam packing, thus greatly reducing shipping costs. Fluctuating temperatures or delays during transport do not affect RNA samples protected in RNA Protection Tube.

Important Notes

Storage in cool ambient conditions may cause precipitates to form in the RNA Protection Tube and the RNA storage mixture. It is possible to dissolve such deposits by warming the reagent or mixture to 30°C.

Kit Contents

Product	R0527-00	R0527-01	R0527-02
Purifications	5	50	200
RNA Protection Tube	5	50	200
HiBind® RNA Recovery Column	5	50	200
2 mL Collection Tube	5	50	200
User Manual	✓	✓	✓

* Each RNA Protection Tube contained 300 µl RNA Protection Reagent.

Storage and Stability

All RNA Transport kit components are guaranteed for at least 24 months from the data of purchase when store at room temperature. Protected RNA can be store at room temperature or cool ambient conditions.

RNA Transport Protocol

Materials and Equipment to be Supplied by Recovery User:

- Microcentrifuge capable of 13,000 x *g*
- Vortexer
- 1.5 or 2 mL nuclease-free microcentrifuge tubes
- 80% ethanol
- DEPC-treated water

RNA Sample Purification Techniques

Most standard molecular biology techniques and/or commercially available kits are compatible with the RNA Protection Reagent. For optimal results, RNA samples should be RNase-free. Purified RNA that is RNase-free should be resuspended in DEPC-treated water prior to storage in RNA Protection Reagent.

Storage procedure

1. Determine the amount of purified RNA in the sample.

   Note: Do not use more than 50 µg RNA.

2. Add 50-100 µL RNA to the RNA Protection tube.

3. Pipet the sample up and down 10 times to mix thoroughly.

4. Store at room temperature or cool ambient conditions.

Recovery procedure

1. Add 4 volumes 80% ethanol to the stored RNA sample. Vortex to mix.

   If the stored RNA sample volume was 350 µL (50 µL sample and 300 µL RNA Protection Reagent), then add 1400 µL 80% ethanol.

   If the stored RNA sample volume was 400 µL (100 µL sample and 300 µL RNA Protection Reagent), then add 1600 µL 80% ethanol.

2. Insert a HiBind® RNA Recovery Column into a 2 mL Collection Tube.

3. Transfer 700 µL sample to the HiBind® RNA Recovery Column.

   Note: The maximum capacity of the HiBind® RNA Recovery Column is 700 µL.

4. Centrifuge at 10,000 x *g* for 30 seconds at room temperature.

5. Discard the filtrate and reuse the collection tube.

6. Repeat Steps 3-5 until all the remaining sample has been transferred to the HiBind® RNA Recovery Column.

7. Add 500 µL 80% ethanol.

8. Centrifuge at 10,000 x *g* for 30 seconds at room temperature.

9. Discard the filtrate and reuse the collection tube.

10. Repeat Steps 7-9 for a second 80% ethanol wash step.

11. Centrifuge the empty HiBind® RNA Recovery Column at maximum speed for 2 minutes to dry the membrane.

    Note: It is critical to remove any trace of ethanol that may otherwise interfere with downstream applications.

12. Transfer the HiBind® RNA Recovery Column to a new 1.5 mL microcentrifuge tube (not provided).

13. Add 15-30 µL DEPC-treated water.

    Note: Make sure to add the DEPC-treated water directly to the center of the column matrix.

14. Let sit for 2 minutes.

15. Centrifuge at maximum speed for 1 minute.

16. Store RNA at -80°C.

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