OMEGA bio-tek

Innovations in nucleic acid isolation

Product Manual

RNA Transport

R0527-00	5 preps
R0527-01	50 preps

July 2014

For research use only.Not intended for diagnostic testing.

RNA Transport

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Introduction

RNA Protection Reagent is designed for the storage of purified RNA samples at room temperature. RNA is stabilized in a propietary buffer that eliminates the need for dry ice shipping or time consuming dry down steps. Simply add your RNA sample to the buffer and ship. Once received, the RNA samples can be quickly recovered in a 5 minute procedure. Samples are stabile at elevated temperatures and freeze thaws eliminating the worries associated with logistic issues.

Sample Type

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

Assay Type

RNA stored in RNA Protection Reagent 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 Protection Reagent 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 Reagent.

New in this Edition:

- HiBind® Recovery Mini Columns have replaced the HiBind® RNA Mini Columns.

Kit Contents

Product	R0527-00	R0527-01
Purifications	5	50
RNA Protection Reagent	2 mL	20 mL
HiBind® Recovery Mini Columns	5	50
2 mL Collection Tubes	5	50
User Manual	✓	✓

Storage and Stability

All RNA Protection Reagent kit components are guaranteed for at least 12 months from the date of purchase when store at room temperature. Protected RNA can be store at room temperature or cool ambient conditions.

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

RNA Transport Protocols

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 100 µL.

2. Add 3 volumes RNA Protection Reagent to a clean 1.5 mL microcentrifuge tube in which the RNA will be stored.

   Note: If the RNA sample volume was 50 µL, then add 150 µL RNA Protection Reagent.

3. Add the RNA sample directly into RNA Protection Reagent.

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

5. Store at room temperature or ambient conditions.

Recovery procedure

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

   Note: If the stored RNA sample volume was 200 µL (50 µL sample and 150 µL RNA Protection Reagent), then add 800 µL 80% ethanol.

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

3. Transfer the sample to the HiBind® Recovery Mini Column.

   Note: The maximum capacity of the HiBind® Recovery Mini 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. Add 500 µL 80% ethanol.

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

8. Discard the filtrate and reuse the collection tube.

9. Repeat Steps 6-8 for a second 80% ethanol wash step.

10. Centrifuge the empty HiBind® Recovery Mini 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.

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

12. Add 15-30 µL DEPC-treated water.

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

13. Let sit for 2 minutes.

14. Centrifuge at maximum speed for 1 minute.

15. Store RNA at -80°C.