RNA Precipitation Solution (Cat. PS-02R)

Product Information:

Catalog Number: PS-02R
Sizes: 10 mL (2x), nuclease-free, sterile
Storage : 2-8°C

Description:

- The **RNA Precipitation Solution (2x)** is designed for rapid purification and concentration of RNA during RNA extractions. This precipitation solution offers major advantages over the ethanol or isopropanol precipitation methods in that it **selectly** precipitates RNA and does not precipitate DNA, protein or carbohydrates. It is able to remove genomic DNA, Proteinase K and Nuclease during RNA preparation. Moreover, it helps to remove inhibitors of cDNA synthesis and maximizes the yields of total RNA, specifically extracted from the small/tiny tissues or LCM samples. The RNA precipitation with >90% efficiency is accomplished in 5-10 minutes on ice. The concentrated RNA is suitable for most downstream applications: real time PCR, reverse transcription PCR, northern blotting, RNase protection, primer extension, hybridization, cloning, microarray assays or other RNA assays.

Procedure:

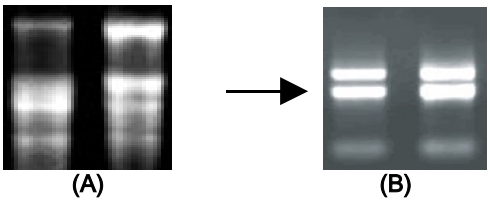
1. Add an equal volume of RNA Precipitation Solution (2x) into the RNA fragment solutions (cell/tissue lysates). Mix well and incubate at -20°C for 20 minutes or overnight.
2. Centrifuge at 12,500 x g for 15 minutes at 4°C.
3. Carefully aspirate liquids and simply rinse pellets with 2 volumes of ice cold 80% ethanol for 2 times without resuspending the RNA pellets. The RNA pellets will **not** be visible if the concentration is less than 20ng/ul.
4. Dissolve the RNA pellets in 20 µl of **nuclease-free** H_2O or TE if the RNA pellet is visible. Otherwise, use 10ul of **nuclease-free** H_2O or TE.
5. Measure RNA concentration using a spectrometer and store RNA at -80°C.

Note: This precipitation solution may not remove all DNA contamination from total RNA isolations. If the RNA is to be used for RT-PCR, it should be DNase I treated.

Suggested Protocol for DNase I treatment:

1. Mix 20ul RNA solution (≧ 10ug RNA) with 20ul of 2X DNase I Reaction Buffer (20 mM Tris-HCl, 5 mM $MgCl_2$, 1 mM $CaCl_2$, pH 7.6)
2. Add 2 units of DNase I, mix thoroughly and incubate at 37°C for 10 minutes.
3. Add 1 µl of 0.5 M EDTA (to a final concentration of 5 mM). Heat inactivate at 75°C for 10 minutes

Figures:



The analysis of crude RNA extracted from MCF-7 cells in 1.2% Formaldehyde RNA gels:
(A) Before using the RNA precipitation solution (PS-02R) showed gDNA (top band), 28S, 18S and 5S RNA bands (lower bands)
(B) After using the RNA precipitation solution (PS-02R) only showed 28S, 18S and 5S RNA bands.

Precautions and Disclaimer:
This product and procedure described are intended for R&D use only. Purchase of this product does not convey a license to perform any patented process.

Contact us, **Phone: 514-702 7702** **Fax: 514-254 5356** **Email:** order@zmtechscience.com **Web:** www.zmtechscience.com