Up RNA Extraction Kit

Catalogue No.:abx098087

Up RNA Extraction Kit contains a ready-to-use reagent for the isolation of total RNA from cells and tissues. Cells are disrupted using a powerful lysis buffer. The addition of chloroform to the sample, followed by centrifugation, separates the solution into an upper colorless aqueous phase containing RNA and a lower pink organic phase. RNA is precipitated and recovered with isopropanol. Proteins can be recovered from organic phase with isopropanol. Up RNA Extraction Kit is suitable for isolating RNA within 1 hour from a variety of different species, including animals, plants and bacteria. The provided RNA Dissolving Solution can be used for long-term RNA storage.

Kit contents:

- Up Reagent: 100 ml
- RNA Dissolving Solution: 15 ml

Reagents Required But Not Provided:

- Chloroform
- Isopropanol
- 75% Ethanol (prepared with DEPC-treated water)
- RNase-Free Water

Target: RNA

Storage: Store at 4 °C in the dark. Stable for 12 months from date of receipt.

Note: THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC, THERAPEUTIC OR COSMETIC PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION.

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Directions for use:

Assay Procedure

1. Homogenization
   - Adherent cells
      1. Wash the culture dish once with 1X PBS.
      2. Detatch cells with a cell spatula. Add a 1 ml of Up Reagent per 10 cm^3 culture dish. Carefully pipette up and down to lyse the cells.
      3. Transfer the lysate (containing cells) to a microcentrifuge tube.
      4. Allow to stand at room temperature for 5 minutes.
   - Suspension cells
      1. Transfer suspension cells, including culture media, to a microcentrifuge tube. Centrifuge at 8000 × g for 2 minutes at 2-8 °C. Discard the supernatant.
      2. Add a 1 ml of Up Reagent per 10^7 cells.
      3. Carefully pipette up and down until no visible precipitates are present in the lysate.
      4. Allow to stand at room temperature for 5 minutes.
   - Animal and plant tissues
      1. Weigh the sample, then freeze with liquid nitrogen and grind into a powder using a mortar. Incomplete grinding may affect RNA yield and quality. Additional liquid nitrogen can be used if required.
      2. Transfer the tissue powder into a microcentrifuge tube. Add 1 ml of Up Reagent per 50-100 mg of tissue. Homogenize the tissue with a homogenizer and carefully and repeatedly pipette up and down.
      3. Allow to stand at room temperature for 5 minutes.
2. Add 0.2 ml of chloroform for each ml of Up Reagent added to the sample. Replace the cap on the sample tube, then shake the tube vigorously by hand for 30 seconds. It is important to mix well for optimal performance. Allow to stand at room temperature for 3 minutes.
3. Centrifuge the sample tube at 10,000 × g for 15 minutes at 2-8 °C. The mixture will separate into a pink lower organic phase, an interphase, and a colorless upper aqeous phase containing RNA. The volume of the aqueous upper phase should be approximately 50% of the volume of Up Reagent used.
4. Transfer the colorless upper aqueous phase containing the RNA to a fresh RNase-free tube. Add 0.5 ml of isopropanol for each ml of Up Reagent used. Mix thoroughly by inverting the tube. Allow to stand at room temperature for 10 minutes.
5. Centrifuge the sample at 10,000 × g for 10 minutes at 2-8 °C. Discard the supernatant. A colloidal precipitate shpould be visible at the wall and bottom of the tube.
6. Add 1 ml of 75% ethanol (prepared with DEPC-treated water) for each ml of Up Reagent used. Vortex to mix thoroughly.
7. Centrifuge the sample at 7500 × g for 5 minutes at 2-8 °C. Discard the supernatant and air-dry the RNA pellet for approximately 5 minutes.
8. Dissolve the RNA pellet in 50-100 µl of RNA Dissolving Solution.
9. Incubate at 55-60 °C for 10 minutes. For long-term storage, store the purified RNA at -70 °C.

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