

## RNAlong RNA Storage Buffer

Product Number: RNK1801

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### Shipping and Storage

Store at 4°C.

### Description

RNA has unstable properties and is highly susceptible to degradation. Purified RNA dissolved in TE or water without RNase is difficult to degrade even when stored at -20°C. To address this issue, RNA precipitation or RNA solution can be dissolved in the RNAlong RNA Storage Buffer, allowing RNA to be stored overnight at 4°C or at -20°C for at least 1 year without degradation. RNAlong RNA Storage Buffer is the best choice for RNA sample transportation and medium to long-term preservation. When needed, conventional ethanol precipitation can be used to recover RNA, or high concentration RNA (up to 4mg/ml) stored in RNA dissolution protection solution can be directly aspirated for RNA electrophoresis and Northern Blot

### Feature

1. RNAlong RNA Storage Buffer may inhibit reverse transcriptase activity, and RNA should be precipitated with ethanol before RT-PCR reaction.
2. The final concentration of RNA in the RNAlong RNA Storage Buffer should not exceed 4µg/µl.

### Protocol

#### 1. Dissolve RNA precipitation using RNAlong RNA Storage Buffer:

- 1.1. For solid RNA precipitation, add 1µl RNAlong RNA Storage Buffer to every 0.4-4µg RNA precipitation, repeatedly blow and mix, or shake at room temperature for 15-30 minutes to dissolve the precipitation. Dry RNA precipitates are difficult to dissolve, and can be repeatedly beaten and mixed before heating at 50°C for 10-15 minutes. It is best to first dissolve the RNA precipitate in a small volume of TE or water without RNase, and then operate as liquid RNA.
- 1.2. For liquid RNA solution, add 1µl RNAlong RNA Storage Buffer to every 0.4-4µg RNA solution and mix well. Note that the volume percentage of RNAlong RNA Storage Buffer in the mixture should not be less than 80%.
- 1.3. Measure the OD value. Please add the corresponding amount of RNAlong RNA Storage Buffer as a blank.
- 1.4. Store the dissolved RNA sample at -20°C or -70°C.

#### 2. Precipitation of RNA from RNAlong RNA Storage Buffer:

- 2.1. Estimate the final volume of RNA solution. Add 4 times the volume of anhydrous ethanol and mix well. If the solution volume is too small and inconvenient to operate, RNase free water can be added to dilute the RNA solution. If the RNA content in the solution is less than 0.25µg/µl, 5M NaCl (RNase free) can be added to the final concentration of 0.2M, mixed well, and then 4 times the volume of ethanol can be added.
- 2.2. Leave at room temperature for 5 minutes.
- 2.3. 12000 rpm for 5 minutes. Abandon Shangqing. Air dry and dissolve.
- 2.4. The re precipitated RNA can be used for RT-PCR reaction after dissolution. It can also be used for any other experiment.

#### 3. Directly using RNA from RNAlong RNA Storage Buffer:

Directly extract RNA from the RNAlong RNA Storage Buffer and perform regular or formaldehyde denaturation electrophoresis and Northern Blot. When performing formaldehyde denaturation electrophoresis, the concentration of RNAlong RNA Storage Buffer in the final sample can reach up to 50%.

**Attachment: Preparation of formaldehyde denaturation electrophoresis sample: Before use, mix water (87µl), formaldehyde (81µl), 50% glycerol/Finland containing 0.25 mg/ml bromine (48µl) and 20X MOPS (24µl). Mix the above mixture with RNA samples from RNAlong RNA Storage Buffer in equal volumes, incubate at 55°C for 10 minutes, and load the samples according to the standard formaldehyde denaturation electrophoresis process.**