CYRN18-CHANGYU RNAlong RNA Long-Term Storage Solution

Catalog number	Package
CYRN1801	1 ml
CYRN1802	2 ml

Storage: 4 °C.

Description

RNA is unstable and readily degraded. Purified RNA dissolved in RNase-free TE or water can degrade even when stored at -20 °C. To solve this problem, RNA pellets or RNA solutions can be dissolved in RNAlong RNA Long-Term Storage Solution, which allows RNA to be kept overnight at 4 °C or for at least 1 year at -20 °C without degradation. RNAlong is well suited for RNA sample transport and medium- to long-term storage. When needed, RNA can be recovered by conventional ethanol precipitation, or high-concentration RNA stored in RNAlong (up to 4 mg/ml) can be loaded directly for RNA electrophoresis and Northern blot.

Notes

Note: RNAlong may inhibit reverse transcriptase activity. Precipitate the RNA with ethanol before RT-PCR.

Note: The final concentration of RNA in RNAlong should not exceed 4 μg/μl.

❖ Dissolving an RNA pellet in RNAlong

1. For a solid RNA pellet, add 1 μl of RNAlong per 0.4-4 μg of RNA and dissolve the pellet by repeated pipetting or by shaking at room temperature for 15-30 minutes. A dried RNA pellet can be difficult to dissolve; after repeated pipetting, heat at 50 °C for 10-15 minutes. Preferably dissolve the pellet first in a small volume of RNase-free TE or water, then treat it as a liquid RNA sample.

2. For a liquid RNA solution, add 1 μl of RNAlong per 0.4-4 μg of RNA and mix. The volume fraction of RNAlong in the final mixture must be at least 80%.

3. Measure the OD value. Use a blank containing the corresponding amount of RNAlong.

4. Store the dissolved RNA sample at -20 °C or -70 °C.

❖ Precipitating RNA from RNAlong

1. Estimate the final volume of the RNA solution and add 4 volumes of absolute ethanol. Mix. If the volume is too small to handle conveniently, dilute the RNA solution with RNase-free water first. If the RNA concentration is below 0.25 μg/μl, add 5 M NaCl (RNase-free) to a final concentration of 0.2 M, mix, and then add 4 volumes of ethanol.

2. Leave at room temperature for 5 minutes.

3. Centrifuge at 12,000 rpm for 5 minutes. Discard the supernatant, air-dry the pellet and dissolve it.

4. The re-precipitated RNA can be used in RT-PCR or any other application after dissolution.

❖ Using RNA stored in RNAlong directly

RNA in RNAlong can be loaded directly for native or formaldehyde-denaturing electrophoresis and Northern blot. For formaldehyde-denaturing electrophoresis, the final loading mixture may contain up to 50% RNAlong.

Formaldehyde-denaturing sample preparation: just before use, mix water (87 µl), formaldehyde (81 µl), 50% glycerol containing 0.25 mg/ml bromophenol blue (48 µl) and 20× MOPS (24 µl). Mix this solution with an equal volume of the RNA sample in RNAlong, incubate at 55 °C for 10 minutes and load according to the standard formaldehyde-denaturing electrophoresis procedure.

This product is furnished for LABORATORY RESEARCH USE ONLY. Not for diagnostic or therapeutic use.