T-Pro RNA Later Solution

Store at RT

(JT90-R008S) 100 ml

This product is for laboratory research ONLY and not for diagnostic use.

Introduction	T-Pro RNA Later Solution is an aqueous tissue storage reagent that rapidly permeates most tissues to stabilize and protect RNA in fresh specimens. It eliminates the need to immediately process or freeze samples; the specimen can simply be submerged in RNA later Solution and stored for analysis at a later date. Samples in RNA later Solution can be stored for extended periods under conditions where RNA degradation would normally take place rapidly. Tissues can be stored indefinitely in RNA later Solution at –20°C or below.
Procedural guidelines	1. Sample Volume: When in use, the volume of RNA later should be at least 5–10 times that of the sample volume to ensure complete and rapid penetration of the reagent. 2. Sample Size: For tissue pieces, the thickness should not exceed 0.5 cm to ensure adequate fixation and protection of the central region. 3. Penetration Time: After immersing the sample in the preservative, incubate at 4°C overnight to allow the reagent to fully penetrate into the tissue interior, then transfer to –20°C or –80°C for long-term storage. For cell pellets or very small tissues, a few hours may be sufficient. 4. Downstream Applications: Before extracting RNA from samples treated with RNA later, it is generally necessary to first remove the sample from RNA later and briefly rinse it with buffer to remove excess salts, as this may affect subsequent extraction efficiency. Please refer to the instructions of the RNA extraction kit you are using for specific steps. 5. Compatibility: RNA from samples processed with RNA later is very stable, but such samples are not suitable for direct use in Western Blot, as the proteins are denatured. However, they can still be used for proteomic analysis (e.g., mass spectrometry).
Storage	T-Pro RNA Later Solution is stable for RT

Instructions

Using RNA later with Tissues

1. Sample Preparation: Use fresh tissue only; do not freeze tissues before immersion.
2. Sizing: Cut large tissue samples down to a maximum thickness of 0.5 cm in any single dimension to allow the solution to penetrate rapidly and thoroughly. Small organs like a mouse liver or kidney can be stored whole.
3. Immersion: Place the prepared tissue in 5 to 10 volumes of RNAlater Solution (e.g., 0.5 g of tissue requires about 2.5–5 mL of solution).
4. Storage: Samples can be stored in the solution under various conditions:
   - 1 day at 37°C
   - 1 week at 25°C (room temperature)
   - 1 month or more at 4°C

	o Indefinitely at –20°C or –80°C (store at 4°C overnight first for thorough penetration, then remove the supernatant for easier freezing).
5	Before RNA Isolation: Remove the tissue from the solution using sterile forceps and blot away excess RNA later with an absorbent wipe before proceeding with your standard RNA isolation protocol (e.g., using TRI Reagent or a commercial kit). Most tissues can be homogenized directly in lysis buffer as if they were fresh.

Instructions

Using RNA later with Cells

1	Cell Preparation: Pellet the cells according to your standard lab protocol and wash with a small amount of PBS (phosphate-buffered saline), if desired, to remove culture medium.
2	Immersion: Resuspend the cell pellet in a small volume of PBS, then add 5 to 10 volumes of RNAlater solution.
3	Storage: The storage conditions for cells are the same as for tissues.
4	Before RNA Isolation: Pellet the cells from the RNAlater solution (higher centrifugal forces may be needed due to the density of the solution) and remove the supernatant before adding the lysis buffe.