



Cyrusbioscience

RNAstay, RNA Stabilization Reagent

Cat. Number: 2520

Storage: Store at Room Temperature for 1 year.

Store at 4°C for 2 years.

If a precipitate develops in the RNAstay, warm the solution to 37°C and agitate to redissolve it.

Description

RNAstay is an aqueous, nontoxic tissue preservation solution. It can inactivate RNase and keep RNA intact by permeating cells and tissues. Cells and tissues can be stored at this solution for one week at room temperature without RNA degradation. It can be used for RNA preservation with bacteria, cells and most fresh animal tissues.

Features:

- Immediate RNase inactivation.
- Sample can be stored at room temperature for 1 week, 4°C for 1 month, -20°C or -80°C for long term storage.
- Compatible with most RNA isolation methods, including Trizol and RNA isolation kits
- Ideal for field sample collection.

Procedure:

Amount of PBS needed:

<i>Sample type</i>	<i>Sample amount</i>	<i>Amount of PBS</i>
Animal cells	$\leq 5 \times 10^6$	50-100 ul
White blood cells	$\leq 5 \times 10^6$	50-100 ul
Bacterial cells	$\leq 1 \times 10^9$	50-100 ul

I Sample preparation:

1. Fresh tissue sample:

(1) The amount of RNAstay: The ratio of tissue sample to RNAstay is 1:5-10. For example, use 0.5-1 ml RNAstay for 0.1 g tissue samples, and immerse sample completely into RNAstay.

(2) Quickly cut up large samples into small pieces (<0.5 cm) in any single dimension, and immerse it into RNAstay. (Small organs such as mouse liver, kidney and spleen can be stored in RNAstay solution directly).



Cyrusbioscience

2. Animal cells and bacteria:

- (1) Centrifuge the suspension of cells or bacteria at 1,500xg at 4°C for 5 minutes, discard the supernatant.
- (2) Wash the pellets with ice-cold PBS.
- (3) Resuspend the pellets with volume of ice-cold PBS suggested in the above table.
- (4) Add 5-10 volumes of RNAsay solution and mix thoroughly.

3. White blood cells in whole blood:

- (1) Separate the white blood cells from the red blood cells and sera.
- (2) Wash pellets with ice-cold PBS.
- (3) Resuspend the pellets with volume of ice-cold PBS suggested in the above table.
- (4) Add 5-10 volumes RNAsay solution and mix thoroughly.

II. Sample storage:

1. Samples in RNAsay solution can be stored at 4°C for at least one month, at room temperature for one week, or at 37 °C for one day.
2. Long-term storage at -20 °C: incubate the samples in RNAsay solution overnight at 4°C to allow thorough penetration of the tissue, then transfer to -20°C.
3. Long-term storage at -80°C: incubate the samples in RNAsay solution overnight at 4°C to allow thorough penetration of the tissue. Centrifuge at maximum speed (>12,000xg), remove the solution then transfer to -80°C.

III. RNA isolation:

1. For tissue samples, retrieve tissue from RNAsay solution with sterile forceps to start RNA isolation.
2. For cell samples, samples storage at 4°C, -20°C and room temperature, centrifuge and remove solution prior to extraction; storage at -80°C can be extracted without centrifugation.

Note:

Tissues stored in RNAsay solution can be frozen and thawed at least 20 times without significantly affecting the yield or the integrity of the recoverable RNA.