

ClearBand RNAintact, RNA stabilization solution

100 ml

Cat No: R100

Shipping : Ship at ambient temperature.

Storage : Store between 15-25°C. If precipitates are observed in the RNAintact solution, simply warm to about 40°C in a water bath and agitate until the precipitates completely disappear. Then, re-cool to room temperature to use the solution.

General Information

ClearBand RNAintact, RNA stabilization solution is prepared using molecular biology grade reagents in ultrapure water. **ClearBand** RNAintact penetrates tissues and cells rapidly and allows stabilization and protection of cellular RNA in unfrozen fresh specimens at room temperature.

ClearBand RNAintact does not necessitate immediate processing of samples for RNA isolation or freezing of samples in liquid nitrogen for further processing.

The integrity of the RNA content of the cells and tissue pieces that are immediately immersed in **ClearBand** RNAintact is maintained. Samples immersed within **ClearBand** RNAintact can be stored up to 1 day at 37°C, 1 week at 25°C, and 1 month at 4°C without a significant loss in RNA integrity. Tissues can also be stored at -20°C or -80°C for long-term.

ClearBand RNAintact is compatible with various downstream applications like total RNA isolation using either TRIzol reagent or spin column-based kits.

A. Storage of Samples within **ClearBand RNAintact**

1. Tissue Material (Animal or Plant)

Cut animal or plant tissue samples into small pieces (keep at least one dimension less than 0.5 cm) and place the fresh tissue in at least 10 volumes of **ClearBand** RNAintact. Please note that plant tissues with natural barriers to diffusion will necessitate careful disruption to let **ClearBand** RNAintact penetrate to the tissue. Pay attention to completely submerge the tissue material within **ClearBand** RNAintact.

2. Tissue Culture Cell

Pellet cells following standard laboratory protocols. Wash the cells with PBS twice to remove remnants of cell culture medium. Add 5–10 equivalent volumes of **ClearBand** RNAintact to the cell pellet. Mix gently by inverting the tube 5–10 times. Pay attention to keep the cells within **ClearBand** RNAintact.

3. White Blood Cells

Collect white blood cells using **ClearBand** 10x Red Blood Cell Lysis Buffer (Cat No: RBCLB-10x). Treat white blood cells as tissue culture cells.

4. Bacteria

Pellet bacteria following standard laboratory protocols. Carefully remove remnants of medium. Add 5–10 equivalent volumes of **ClearBand** RNAintact to the cell pellet. Mix gently by inverting the tube 5–10 times. Pay attention to keep the cells within **ClearBand** RNAintact.

Note: Samples immersed within *ClearBand* RNAintact can be stored at 25°C for 1 week and at 4°C for 1 month without any further processing. For long-term storage at -20°C, samples within *ClearBand* RNAintact are incubated at 2–8°C overnight and then transferred (with the reagent) to -20°C for storage. Samples will not freeze at -20°C, however, some precipitates may form in the storage buffer, which will not affect downstream processing. For long-term storage at -80°C, samples within *ClearBand* RNAintact are incubated at 2–8°C overnight, and then transferred (without the reagent) to -80°C for storage. For cell pellets, it is not necessary to remove the *ClearBand* RNAintact. Cells within *ClearBand* RNAintact can be frozen -80°C. Thawing frozen cell pellets within *ClearBand* RNAintact at room temperature will not affect the yield or the integrity of the RNA content.

B. Recovery of RNA from samples stored within *ClearBand* RNAintact

1. Tissue Material (Animal or Plant)

Tissue materials within the *ClearBand* RNAintact should be removed carefully with sterile forceps and transferred into RNA isolation lysis solution. Tissue should be homogenized immediately after tissue material is transferred into lysis solution.

Note: Tissue materials that are in *ClearBand* RNAintact can be removed from the solution, cut into small pieces, and then immersed again in *ClearBand* RNAintact if desired.

2. Tissue Culture Cell

Tissue culture cells within *ClearBand* RNAintact can be collected by centrifugation.

Since *ClearBand* RNAintact is dense solution, cells may not pellet when the cells are centrifuged using speeds for live cells. Pellet cells by centrifugation at appropriate centrifugal force specific to cell type (3 min at 3000-10000g is recommended). Remove the remnant of the *ClearBand* RNAintact. Homogenize cells immediately in RNA isolation lysis solution.

Note: Addition of 3 volumes of 1x PBS to *ClearBand* RNAintact solution may help pelleting cells much easier.

3. White Blood Cells

Pellet white blood cells by centrifugation. Treat as white blood cells as tissue culture cells.

4. Bacteria

Bacterial cells within *ClearBand* RNAintact can be collected by centrifugation.

Since *ClearBand* RNAintact is dense solution, bacterial cells may not pellet when the cells are centrifuged using speeds for live cells within culture medium. Pellet cells by centrifugation at appropriate centrifugal force (3 min at 10000g is recommended). Remove the remnant of the *ClearBand* RNAintact. Homogenize bacterial cells immediately in RNA isolation lysis solution.

Note: Addition of 3 volumes of 1x PBS to *ClearBand* RNAintact solution may help pelleting cells much easier.