RNAfix Solution

Description:

RNAfix is an aqueous, nontoxic, tissue and cell storage solution intended for the preservation of RNA for later isolation. It is a preservation solution that allows recovery of intact RNA from tissues and cell culture.

Samples in RNAfix solution can be stored indefinitely at -20 °C with no RNA degradation.

RNAfix solution can be used for the storage of tissues, cells, bacteria and yeasts. The solution may not be effective for the storage of waxy plant tissue and bone because of poor penetration of the solution. RNAfix is compatible with most RNA isolation methods.

Storage in RNAfix™ solution:

Storage at 4 °C:

Samples can be stored in RNAfix solution at 4°C for up to 1 month without significant RNA degradation. To ensure rapid and reliable stabilization of RNA even in the inner parts of solid tissues, the sample must be cut into slices less than 0.5 cm thick. Submerge the tissue or cell pellet in the appropriate volume (at least 0.5 ml) of RNAfix immediately after harvesting. Cell culture media should be centrifuged and removed from the cell pellet.

Storage at -20°C:

Incubate samples in RNAfix solution overnight at 4°C only then transfer to –20 °C. Samples will not freeze at –20 °C but crystals may form. This will not affect subsequent RNA isolation. Samples can be stored at –20 °C indefinitely.

Weights and Amounts of RNAfix solution:

	Weight (mg)	Reagent (ml)
Kidney	180 – 250	1.8 – 2.5
Spleen	100 – 160	1 – 1.6
Lung	190 – 210	1.9 – 2.1
Heart	100 – 170	1 – 1.7
Liver	1000 – 1800	10 – 18

RNA isolation from samples in RNAfix:

Cells:

Dilute the RNAfix solution with an equal volume of cold Dulbecco's PBS (or other buffer solution) to reduce the density of the solution and immediately centrifuge at normal speeds to pellet the cells. Remove the solution and isolate RNA from cell pellet.

Tissue:

Using sterile forceps transfer the tissue from RNAfix solution to RNA isolation lysis solution.