

PrepProtect™ Stabilization Buffer

Stabilize fresh or frozen samples for reliable gene expression analysis

One pipetting step and your sample is safe

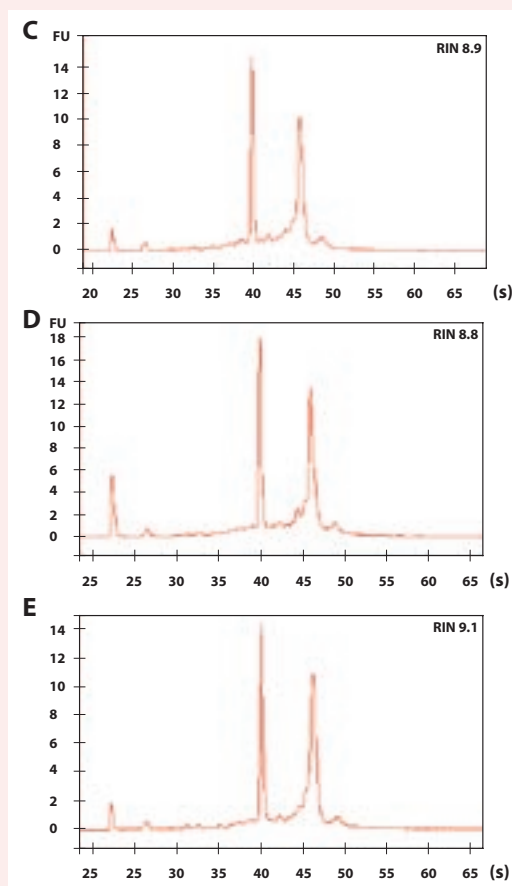
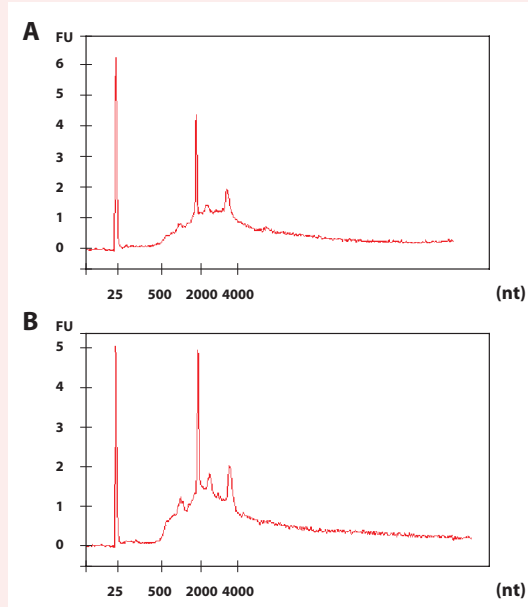
Simply add the non-toxic PrepProtect™ Stabilization Buffer to the cell or tissue samples to inhibit RNases and thus stabilize RNA. Now, the sample is safe at room temperature, 4 °C, or even one day at 37 °C. PrepProtect also stabilizes protein for denatured downstream applications like Western blots.

For fresh or frozen samples

PrepProtect allows RNA stabilization of both freshly prepared as well as previously frozen samples since it prevents RNA degradation. The frozen tissue is simultaneously softened when the stabilizing solution penetrates the tissue structure. Hence, PrepProtect permits weighing and even dissecting of frozen tissue, easing the need to work fast.

Multiple samples, no stress

When handling several biological samples in parallel, processing time is critical for downstream RNA analysis. PrepProtect maintains RNA integrity during sample collection, storage, and preparation. Thereby, RNA quantity and quality are preserved – from the first to the last sample.



Fluorescent analysis of RNA migration, Bioanalyzer 2100, Agilent Technologies; FU, fluorescent units; nt, nucleotides; s, seconds; RIN, RNA integrity number.

A, B mRNA derived from 10^6 Jurkat cells stabilized for one day at 37 °C in PrepProtect (A) is comparable to cells quick-frozen in liquid nitrogen (B). mRNA isolated with μ MACS mRNA Isolation Kit.

C, D, E Intact total RNA derived from mouse liver samples stabilized in PrepProtect compared to quick-frozen material: Tissue was stabilized in PrepProtect, stored for 33 days at 4 °C (C); for one day at 37 °C (D); frozen tissue was stored at –80 °C for 33 days (E).

Simplify your sample preparation

High-quality RNA is a prerequisite for many gene expression profiling techniques such as quantitative PCR or microarray analysis. However, RNA is chemically unstable and susceptible to ubiquitous RNases. RNase-associated degradation during sample collection, storage, thawing of frozen samples, and RNA preparation jeopardizes accurate downstream analyses.

Stabilization of fresh sample

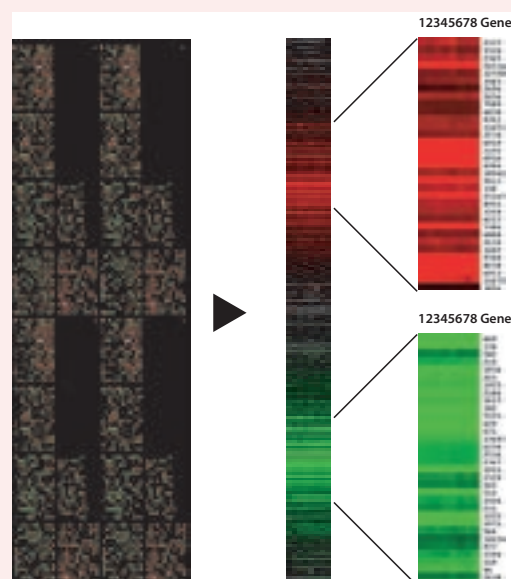
The new, non-toxic reagent PrepProtect™ Stabilization Buffer allows instant RNA stabilization in freshly harvested samples. By simply adding PrepProtect, freshly harvested samples are typically stable for at least one day at 37 °C, one week at room temperature, one month at 4 °C, or for archival storage below –20 °C. This facilitates sample collection and parallel processing of multiple samples, and allows convenient sample shipment without dry ice.

Stabilization of frozen sample

PrepProtect seeps through previously frozen material, and protects RNA during thawing. Frozen samples incubated in PrepProtect are stable for up to one hour at room temperature or overnight at 4 °C. This enables researchers to prepare their samples, e.g. to weigh or dissect tissues, before RNA isolation. PrepProtect compensates the hardness of frozen tissues by softening their structure; thereby, facilitates tissue lysis and homogenization without prior pulverization with mortar and pestle.

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*PIQOR™ Microarray Kits are available in Europe only.



False-color microarray overlay (PIQOR™ Immunology Microarrays) and cluster analysis: Tissue samples stabilized in PrepProtect at different temperatures and durations versus quick-frozen controls and an otherwise stabilized sample generated similar gene expression profiles. Microarray correlation values were 0.98 each (Pearson correlation).

Quick-frozen control tissues were stored for five days at –80 °C, lane 1; or 33 days at –80 °C, lane 2. Tissues were incubated in PrepProtect for five days at 4 °C, lane 3; two days at room temperature (RT), lane 4; 33 days at 4 °C, lane 6; or for one day at 37 °C, lane 8. Alternatively, samples were stabilized with a solution from a different supplier for two days at RT, lane 5; and 33 days at 4 °C, lane 7.

Products	Order no.	
PrepProtect™ Stabilization Buffer	10 mL	130-092-643
PrepProtect™ Stabilization Buffer	100 mL	130-092-642

Related products

µMACS™ mRNA Isolation Kits

PIQOR™ Microarray Kits*

PIQOR™ Microarray Services

Please find details
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