RNA stable®

Biomātrica®
THE BIOSTABILITY COMPANY

RNA. STABILIZED.

Preserve, Ship and Store Total RNA at Room Temperature with RNAstable®.

RNAstable® is a unique storage medium that preserves total RNA, mRNA, miRNA and siRNA samples at room temperature. RNAstable allows for long-term stabilization of RNA samples with easy sample recovery by simply adding water.

Protect total RNA sample integrity.

Decrease shipping costs.

Concentrate samples efficiently.

Reduce reliance on freezers.

Store RNA samples at room temperature.

Ship and Store purified RNA at Room Temperature.

RNAstable enables you to stabilize total RNA samples at room temperature for years. Confidence in sample stabilization means increased reproducibility and data accuracy.

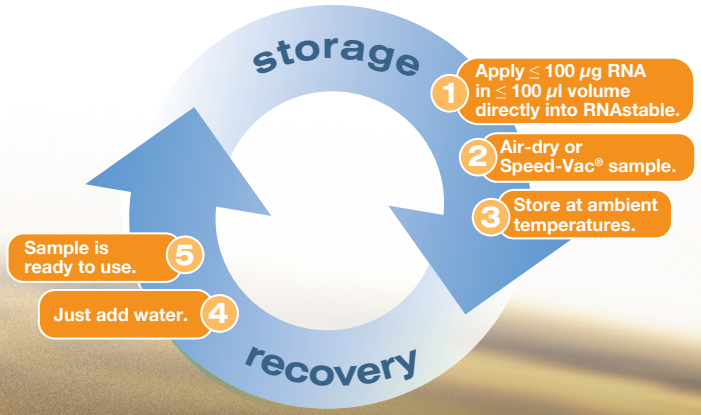
Save Money by simplifying the handling and shipping of RNA since refrigeration and dry ice are not required.

Add Water for Rapid and Complete Sample Recovery.

Using RNAstable, you can fully recover RNA samples in 10 minutes or less. In addition, you can concentrate your sample during recovery.

Use Samples Directly in Downstream Applications.

- Quantitative Real-Time PCR
- Bioanalyzer and microarray analysis
- End-point PCR and gel analysis
- cDNA synthesis
- Reverse transcription



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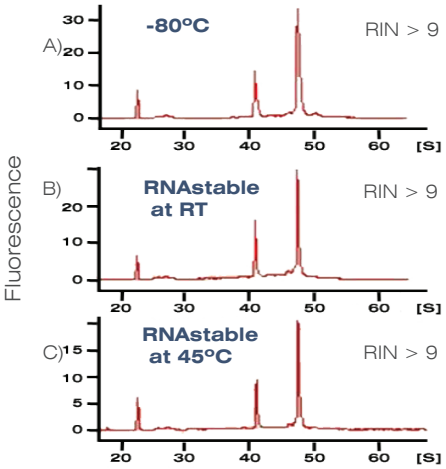
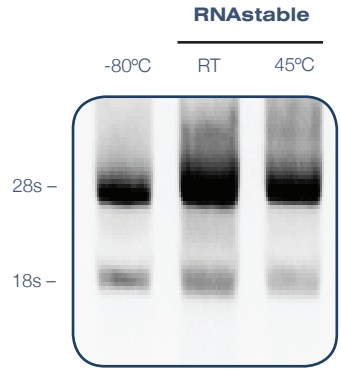
Long-term Stability and Sample Integrity.

RNAstable® protects total RNA, mRNA and miRNA. Samples can be safely stored for **12 years** at room temperature and **protected from degradation**.



ABOVE Results from Agilent 2100 Bioanalyzer indicate no detectable degradation of samples stored in RNAstable for 29 months at room temperature (graph B), as compared to -80°C freezer control samples (graph A) and with accelerated aging (graph C) at 45°C **for 29 months** (equivalent to RNA stored in RNAstable for **12 years at room temperature**). The unprotected control sample stored at RT degraded after 3 months.



ABOVE Lane 1- RNA Samples stored in a -80°C freezer. Lane 2- Samples stored in RNAstable were protected from degradation for 29 months at room temperature. Lane 3- RNA samples stored in RNAstable at 45°C for 29 months (equivalent to RNA stored in RNAstable for **12 years** at room temperature). The unprotected control sample stored at RT degraded after 3 months.

From Nature to the Lab.

RNAstable is based on the natural principles of anhydrobiosis ("life without water"), a biological mechanism employed by organisms such as tardigrades and brine shrimp that enables their survival while dry for up to 120 years. Anhydrobiotic organisms protect their DNA, RNA, proteins, membranes and cellular systems, and can be revived by rehydration. By exploiting these unique characteristics, RNAstable preserves total RNA dry at ambient temperatures. RNAstable works by forming a glass-like shell, securely "shrink-wrapping" RNA samples and protecting against degradation.

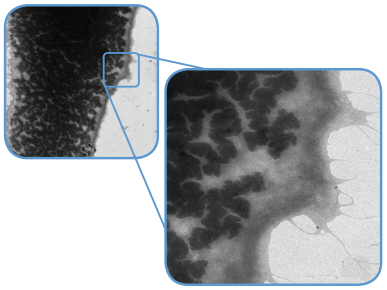
Successful Gene Expression Analysis on MicroArray.

Total RNA preserved in RNAstable® at room temperature is perfectly suitable for microarray analysis without additional purification steps.

Storage condition	Background	Noise	% Present	GAPDH (3'/5' ratio)	ß-actin (3'/5' ratio)
RNAstable (RT)	37.3 ± 1.6	1.6 ± 0.2	59.3 ± 1.0	1.14 ± 0.06	4.22 ± 0.71
Control (-80°C)	37.4 ± 1.6	1.7 ± 0.1	59.4 ± 1.3	1.10 ± 0.06	4.10 ± 0.20

ABOVE Results from GLYCOv3 microarrays (built by Affymetrix for the Consortium of Functional Glycomics) scanned using Affymetrix ScanArray 3000. The number of present and absent calls and the average signals intensity did not reveal any significant differences between samples stored frozen or those maintained at room temperature in RNAstable for 14 days.
Data kindly provided by Dr Steven R. Head, The Scripps Research Institute (Biotechniques, 47 : 667-670, 2009).

BELOW Electron micrograph of the RNAstable protective barrier shows the thermo-stable, glass-like shell that forms around nucleic acid molecules to stabilize and prevent degradation at room temperature.



RNAstable is available in the following formats:

PRODUCT	CATALOG NO.	CONTAINS
RNAstable Trial Kit	93220-001	(3) Tubes RNAstable, (1) Tube Sterile Water, (1) resealable sample pouch
RNAstable Tube Kit	93221-001	(25) Tubes RNAstable, (1) Tube Sterile Water, (2) resealable sample pouches
RNAstable 96-well Plate	90220-001	(1) 96-well Plate, (2) Tubes Sterile Water, (1) resealable sample pouch
RNAstable 96-well Plates	90222-001	(10) 96-well Plate, (20) Tubes Sterile Water, (10) resealable sample pouches
Sample Storage Pouches	14001-007	Set of (10) moisture barrier foil bags and dessicants

For ordering information, please call 866-379-6879 or visit www.biomatrica.com.

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