

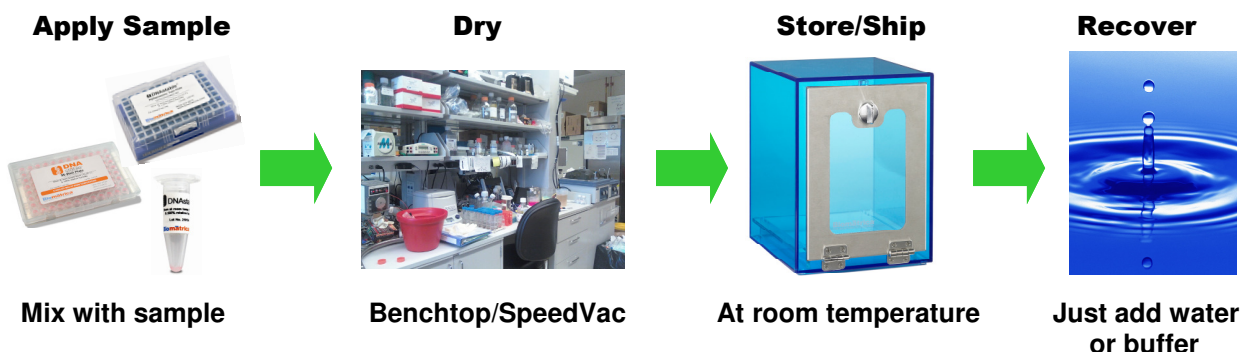
Unique Stability and Assay Products

Long-term storage of biological samples at room temperature.

Micronic now offers the full line of Biomātrica reagents to provide stability and assay enhancement to your laboratory. These products utilize revolutionary SampleMatrix™ technology to preserve and store biological samples at room temperature.

How Do SampleMatrix™ Reagents Work?

These biostability reagents employ technology based upon the concept of anhydrobiosis (life without water). When mixed with a biological sample, the reagents “shrink-wrap” biomolecules in a thermo-stable dissolvable glass. The sample is then rendered stable at room temperature.



What Types of Samples/Applications Do the Reagents Work With?

Biomātrica products stabilize DNA, RNA, and cloning bacteria, as well as enhance PCR and STR assay signals.

What are the Benefits?

Cut Energy and Shipping Costs:

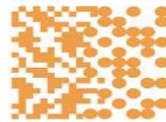
- No need for large/ expensive freezers (or alarm systems) to keep samples frozen
- Eliminates the need for dry ice packing when shipping samples to other labs
- Freezers can be replaced with compact dry storage cabinets to keep samples dry

Secure Your Sample's Safety:

- Dry storage protects your samples even in power outages and energy losses
- Alarms or backup power are not needed to keep your samples at a set temperature

Improve Your Lab's Sustainability:

- Reduces the need for cold storage, energy use, as well as CO₂ output
- Simultaneously protect your samples and reduce your lab's carbon footprint!



Room-Temperature Stabilization Products



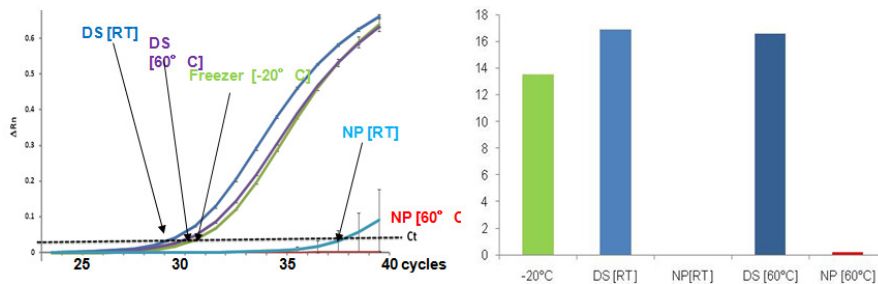
Preserve and store genomic and plasmid DNA at room temperature

Benefits:

- Compatible with array technologies
- Available formats: microcentrifuge tubes, 96-well plates, 384-well plates, Alphanumeric tube plates, and 2D barcoded tubes



Genomic DNA Recovery After Storage



*20ng gDNA stored for 26 months at Room Temperature and 60°C (26 months at 60°C = 30 years at Room Temperature)

*DS = DNAstable; RT = Room Temperature; NP = No Protection



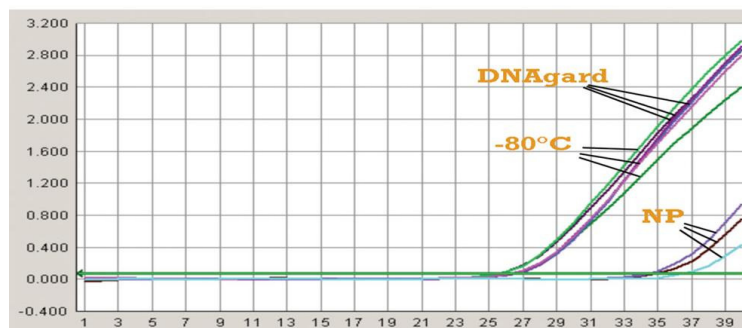
Preserve DNA in tissues and cells for at least 2 months at room temperature in a liquid format, or one year in a dry-down format



Benefits:

- Stabilize DNA immediately in complex samples (animal tissue and cells)
- Submerged samples are stable for at least 2 months at room temperature
- Unique optional dry-down method provides convenient long-term stability for one years

Real-Time PCR After Two Months of Storage



Rat kidney fragments were weighed (approx. 25mg each) and immediately submerged in DNAgard solution or water (NP) and stored at room temperature. Control samples were frozen and stored at -80C. After 71 days, total DNA was recovered from the stored samples using a commercially available column purification technology. DNA was analyzed by real-time PCR amplification of the beta-action gene.

Room-Temperature Stabilization Products



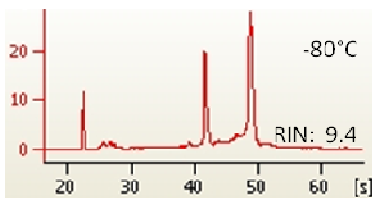
Preserve and store RNA samples at room temperature

Benefits:

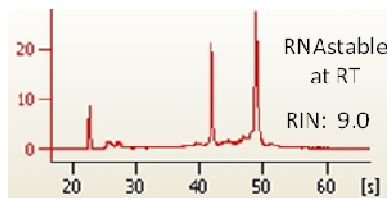
- Stores and protects total RNA, mRNA and miRNA sample integrity
- Available formats: microcentrifuge tubes, 96-well plates



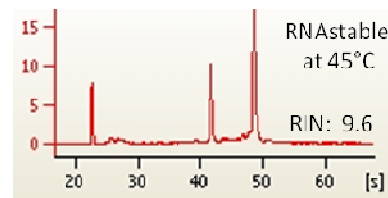
RNAstable protects RNA integrity at room temperature



Fluorescence A



Fluorescence B



Fluorescence C

Results indicate no detectable degradation of sample stored in RNAstable for 29 months at room temperature (B), as compared to -80°C freezer control samples (A) and with accelerated aging (C) at 50°C for 29 months (equivalent to RNA stored in RNAstable for 10 years at room temperature). Unprotected control sample stored at room temperature degraded at 3 months.



Preserve and store unpurified bacterial genomic and plasmid DNA at room temperature

Benefits:

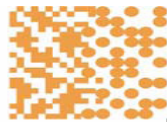
- Long-term storage of unpurified bacterial plasmid and genomic DNA
- Bacteria cultures can be applied directly to CloneStable; no prior purification needed
- Transformation of crude *E. coli* lysates stabilized in CloneStable results in colony counts equivalent or higher to freezer controls
- Available formats: microcentrifuge tubes, 96-well plates, 384-well plates, Alphanumeric tube plates, and 2D barcoded tubes



CloneStable is available in well plate (left) and tube (right) formats



If freezer space and costs are an issue for your group and/or you want to ensure security for your biological assets, we can help you. Please contact us for more information.



Assay Products



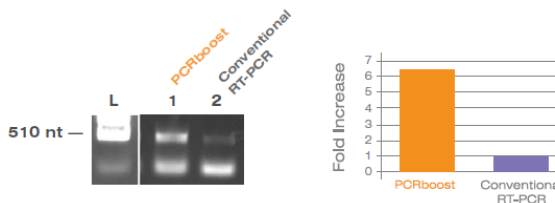
Difficult samples? Enhance end-point and reverse transcription-PCR performance with PCRboost: it improves sensitivity and specificity during amplification of genomic DNA or RNA templates.

PCRboost greatly improves amplification of difficult samples, enhancing yield, specificity, and consistency. Difficult samples may include degraded samples (such as FFPE or bisulphite-treated samples), low-copy transcripts, or samples containing inhibitory factors.

No protocol changes are needed for end-point or reverse transcription-PCR reactions -- simply replace the water in your reaction with PCRboost. Use your existing TAQ, cycling conditions, and protocols. PCR products are compatible with all downstream applications.

Benefits:

- Enhances most challenging samples
- Easy to use
- Uses existing TAQ and protocol



6.2-fold increase in reverse transcription-PCR amplification with use of PCRboost compared to conventional unenhanced PCR



Undetectable alleles? Overcome the challenge of inhibitory factors (such as heme, humic acid and, indigo) with the addition of STRboost: increase peak heights and facilitate identification of individuals from picogram levels of DNA.

STRboost is an enhancing reagent that provides improved confidence of identification and is easily incorporated into any workflow. Current cycling conditions and equipment can be used with commercially available genetic identification kits such as ABI's Identifiler® and Promega's PowerPlex 16® Systems.

Benefits:

- Improves peak balance
- Increases number of allele calls
- Enhances peak height definition
- Overcomes inhibitory factors

Challenging samples may include:

- Limited samples (e.g. trace samples, low copy number)
- Degraded samples
- Blood samples containing inhibitory factors (e.g. heme)

Take The Next Step!

Micronic also offers SampleWare, an easy-to-use and affordable LIMS system to help you track and manage your samples -- contact us for more information or a free trial!



*Identifiler is a registered trademark of Life Technologies™. Powerplex 16 is a registered trademark of Promega Corporation. As a distributor, Micronic North America does not warranty Biomātrica products directly or indirectly as to suitability, durability, condition, use, merchantability, or fitness for a particular purpose. Micronic North America undertakes no responsibility for the quality of the product except as expressly provided in our contracts.