GenTegra™ RNA

Active Chemical Protection™ — RNA Protection from Beginning to End

GenTegra™ RNA is the only product that provides immediate protection against RNase attack when the RNA solution is eluted directly into GenTegra RNA. Your RNA samples are stabilized in both liquid form for safe laboratory handling, and after drying, for shipping or long-term storage. Simply add molecular biology grade water to recover >99% of your sample — no cleanup step required. Samples go directly into analysis or NGS protocols.

Key Features

Immediate RNase Protection — Active Chemical Protection chemistry begins working the moment RNA contacts GenTegra RNA
Better than Dry Ice — Delivers 17% more scaffolds than shipping frozen;* protected against delays that allow dry ice to evaporate
Liquid & Dry Stability — Samples protected up to 100 hours in solution at RT; indefinitely at ambient temperature when dried
Simple Recovery — Add water to recover >99% of your sample, ready for RNASeq and all downstream applications

Long-Term Stability — Gel Electrophoresis & RIN Scores

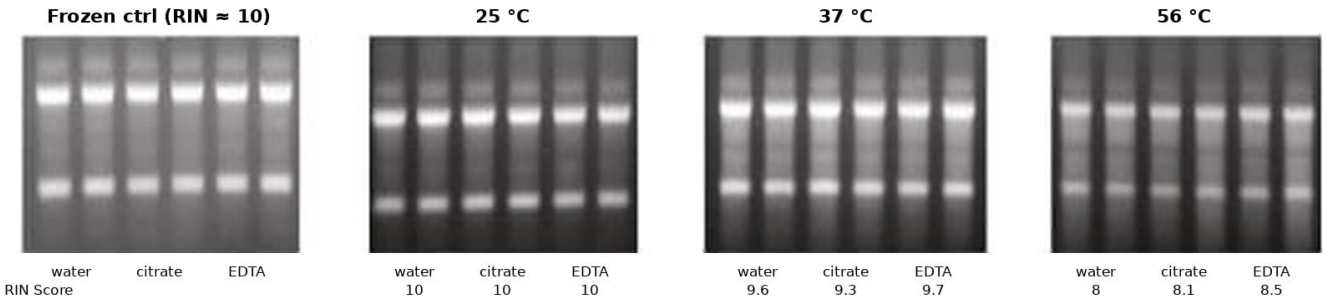

Figure 1: 2% agarose gels of purified HeLa RNA in water, citrate, and EDTA solutions stored frozen (control, RIN=10) or applied to GenTegra RNA, then air-dried and stored at 25 °C, 37 °C, and 56 °C for six months. High RIN scores confirm excellent preservation across all conditions.

3.5-Year Preservation — RIN Scores

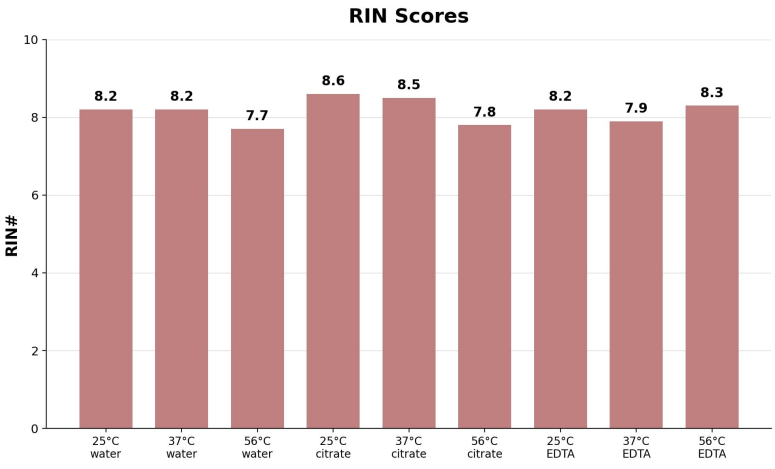

Figure 2: Agilent Bioanalyzer RIN scores for purified HeLa RNA after 3.5 years of mixed-temperature, dry-state preservation on GenTegra RNA. All conditions maintain RIN ≥ 7.7.

Why GenTegra RNA?

- The cost of shipping a sample on dry ice can be **25 times** the cost of a tube of GenTegra RNA. Eliminate dry ice dependency— delays of days or even weeks will not harm your protected samples
- RNA frozen at −80 °C showed degradation after only 8 months of storage.[2] GenTegra RNA data for samples stored 4 years and temperature-stressed to simulate >9 years shows RNA remains well protected[3]
- Compatible with all common buffers (TE, EDTA, H_2O). No special desiccation requirements for shipping or storage

SureFire Biosciences Inc.
30 N Gould St, Ste R, Sheridan, WY 82801
888.765.2097 | contact@surefirebio.com | www.surefirebio.com

RNA Integrity in Solution

GenTegra RNA preserves sample integrity for up to 100 hours at 25 °C and 37 °C in liquid form, providing safe handling time in the laboratory before drying for storage or shipping. When dried, it stabilizes samples for indefinite periods of storage at ambient temperature.

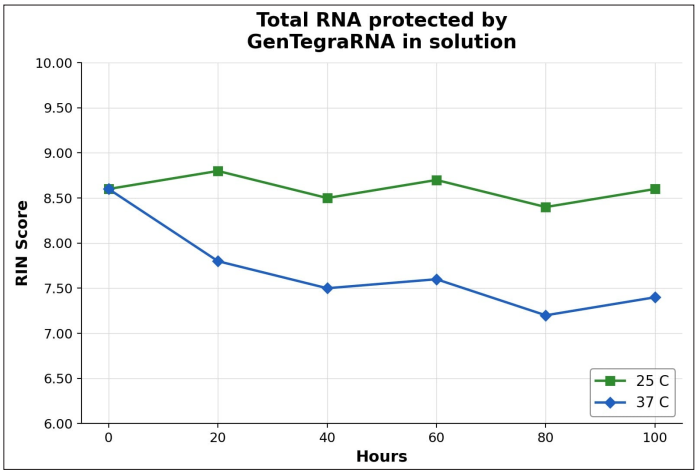

Figure 3: Total RNA stabilized by GenTegra RNA at 25 °C and 37 °C in solution for 100 hours. RIN scores remain high throughout, confirming liquid-phase protection.

Dry-Rehydrate vs. Freeze-Thaw Cycling

GenTegra RNA maintains quantitative integrity through multiple cycles of drying and rehydration — unlike traditional freeze-thaw, which progressively degrades RNA quality.

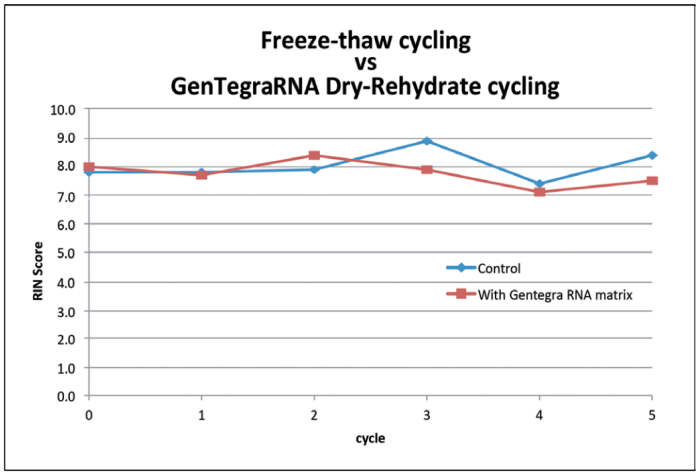

Figure 4: GenTegra RNA protects RNA through several dry-rehydrate cycles. Control was frozen and thawed for each cycle, showing progressive degradation.

Simple 3-Step Workflow

1. Stabilize with GenTegra RNA →
2. Dry sample and ship at ambient temperature →
3. Recovery: add water and use in RNAseq

Product Specifications

Specification	Description
Format	0.5 mL screw cap tubes · 0.3 mL 96-tube racks · 96-well microtiter plate* · Dry bulk
Total RNA Application	≤ 20 µg
Sample Application Volume	20–50 µL (volumes between 1–20 µL require special handling; see user guide)
Recovery Volume	Equals application volume (20–50 µL of molecular biology grade water)
Stability for Transport	Tolerance for extreme temperatures and shifts (−80 °C to 76 °C) Exceeds Military specifications (−60 °C to 71 °C) Exceeds Federal Express® specifications (−51 °C to 60 °C)
Shelf Life	3 years (prior to use)
Drying	FastDryer™: Overnight · SpeedVac®: 2–3 hours · Under Biosafety Hood: 14 hours
Recovery	> 99%

*barcode optional

[1] Johnson, Marc T. J., et al. Evaluating Methods for Isolating Total RNA and Predicting the Success of Sequencing Phylogenetically Diverse Plant Transcriptomes. PLOS ONE, 2012; 7, (11) e50226: 1-12.
[2] Olivieri, Eloisa H. R., et al. Biobanking Practice: RNA Storage at Low Concentration Affects Integrity. BIOPRESERVATION AND BIOBANKING, 2014;12, (1): 46-52
[3] Data available upon request.

SureFire Biosciences Inc.
30 N Gould St, Ste R, Sheridan, WY 82801
888.765.2097 | contact@surefirebio.com | www.surefirebio.com