GenTegra™ DNA

Active Chemical Protection™ — Stabilize DNA at Ambient Temperature

GenTegra DNA protects DNA from hydrolysis and oxidation, stabilizing it for long-term ambient temperature storage, while freezing merely slows these processes. Recovering your sample after storage or shipment is easy — simply add water to recover >99% of your sample, and it is ready for any downstream application.

Key Features

Long-Term Ambient Stability — DNA samples show no degradation after the equivalent of 16 years at ambient temperature in accelerated stability studies

Complete Protection — Stabilize DNA for a wide temperature range (−80 °C to 76 °C), exceeding military and shipping carrier specifications

Simple Recovery — Add water to recover >99% of your sample, ready for any downstream application

Ship with Confidence — Eliminates need for dry ice and cold packs; samples remain protected even during extended transit delays

Long-Term Protection & Stability

DNA samples stored with GenTegra DNA show no degradation after the equivalent of 16 years at ambient temperature.[1]

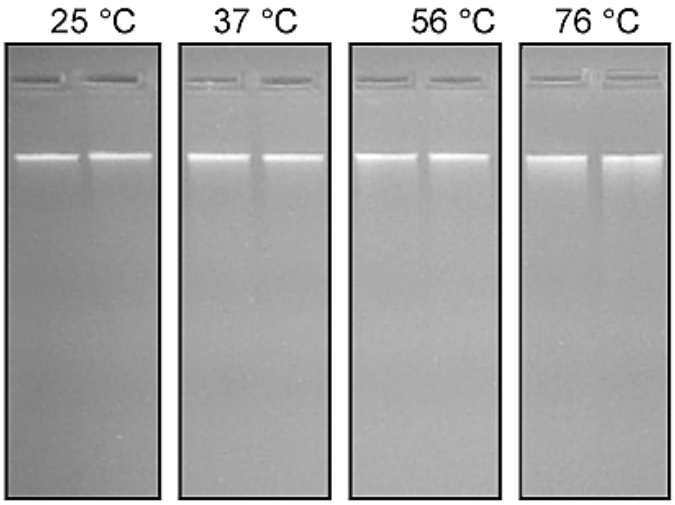

Figure 1: 250 ng/lane genomic DNA stored on GenTegra DNA for six months at ambient (25 °C) and elevated temperatures (37 °C, 56 °C, 76 °C).

[1] Bruskov, VI. *et al.* (2002) Heat-induced formation of reactive oxygen species and 8-oxoguanine, a biomarker of damage to DNA. *Nucleic Acids Research*, 6, 1354-1363.

Product Formats

Available in 0.5 mL screw cap tubes, cluster tubes, microtubes, 96-well plates, and dry bulk.

Storage & Protection

Condition	Stability
Ambient (25 °C)	>16 years (accelerated)
Transport range	−80 °C to 76 °C
Shelf life (prior to use)	3 years

Simple 3-Step Workflow

1. Stabilize in GenTegra DNA and dry
2. Store or transport at ambient temperature
3. Recover by adding water; use in downstream applications

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

4.5-Year Ambient Storage

After initial incubation at 25 °C, 37 °C, and 56 °C for six months, samples were stored at ambient temperature (25 °C) for four years — duplicating real-world storage conditions. These samples show no degradation and perform identically in all downstream applications.

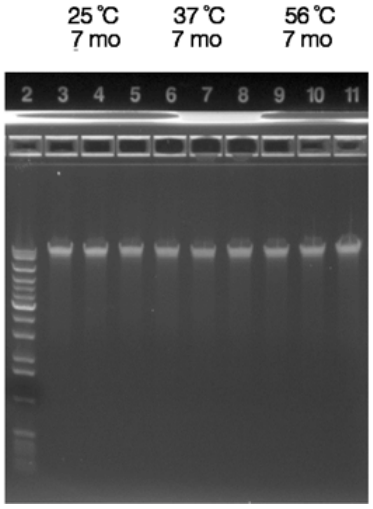

Figure 2: 100 ng/lane genomic DNA stored on GenTegra DNA for four years following incubation at three different temperatures. All samples show intact high-molecular-weight DNA with no visible degradation.

Quality Retention — qPCR Analysis

Amplification of mitochondrial DNA in qPCR shows that 4.5-year-old DNA is intact to at least 2.5 kb. Ct values were normal (19–23 cycles) for all samples, confirming that long-term ambient storage on GenTegra DNA preserves full sample functionality.

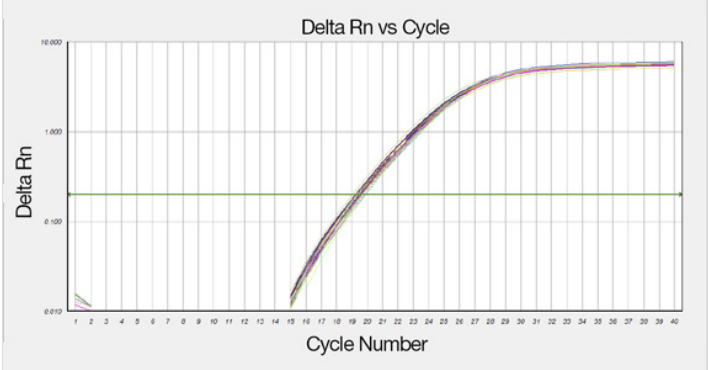

Figure 3: Long-range qPCR on 4.5-year-old DNA samples. Multiple replicates show tight clustering of amplification curves with normal Ct values (19–23 cycles), confirming sample integrity across all storage conditions.

Downstream Applications

- Transfections
- Quantitative PCR
- Gene expression
- rRNA profiling
- Next-generation sequencing
- Genotyping
- HLA typing
- Forensics

Product Specifications

Specification	Description
Format	0.5 mL screw cap tube · 0.3 mL cluster tube · 1.7 mL microtube snap cap · 96-well microtiter plate* · Dry bulk
Total DNA Application	0.05 µg – ≤ 20 µg
Sample Application Volume	1–250 µL (special handling required for volumes < 20 µL)
Recovery Volume	Equals application volume (20–250 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®: 2–4 hours (depending on volume/type) Under Biosafety Hood: 14 hours
Recovery	> 99%

*barcode optional

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