

PrimeStore® Specimen Diversity

Clinical Samples

- Cough Sputum
- Nasal Wash/Swabs
- Throat Swabs
- Buccal Swabs
- Urine
- Blood/Serum

Environmental Samples

- Cloacal
- Fecal
- Water
- Insect Vectors
- Other Environmental Matrices

Benefits

PrimeStore Molecular Transport Media™

- Inactivates, kills and lyses microbes including M. tuberculosis
- Destroys nucleases (RNase/DNase)
- Compatible with multiple extraction systems
- Preserves RNA/DNA integrity
- Facilitates RNA/DNA extraction and purification
- Easy transport and shipping at ambient temperatures (no cold chain required)
- Ready for storage

A Novel Specimen Collection Solution for Molecular Diagnostic Applications

- 5mL tube with 1.5mL PrimeStore®
- PrimeStore® plus flocked swabs

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PrimeStore®

An Innovative Novel Specimen
Collection & Preservation Solution
for Molecular Diagnostics



COLLECT • LYSE • STABILIZE • PRESERVE

Many clinical laboratories are transitioning from traditional culture methods into molecular diagnostics. Obtaining high quality nucleic acid (RNA/DNA) is the first and most critical step in any downstream molecular-based diagnostic.



What is PrimeStoreMTM™

A collection solution optimized to:

- Obtain high quality nucleic acids (RNA/DNA) from clinical or environmental specimens
- Stabilize and preserve 'naked' RNA/DNA for prolonged time periods
- Inactivate infectious biological pathogens for safe handling and transport (including *M. tuberculosis*)
- Be compatible with commercially available RNA/DNA isolation kits
- Produce superior nucleic acid (RNA/DNA) yields compared to commercially available nucleic acid isolation kits

PrimeStore® Advantages

1. PrimeStore® Lyses

PrimeStore solution inactivates/kills microbial agents including *M. tuberculosis*: gram positive, gram negative bacteria & viral microbes from clinical and environmental specimens

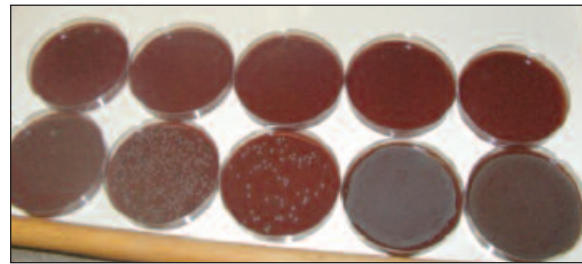
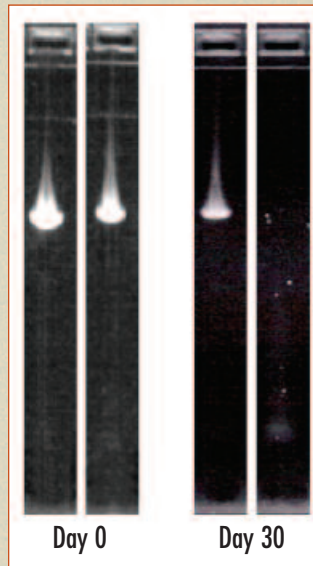


Figure 1. PrimeStore inactivates microbial agents in ≥ 1 hr. Four original chicken cloacal samples were immersed in PrimeStore (top row) or water (bottom row) and subsequently plated on blood agar plates.

2. PrimeStore® Preserves

PrimeStore solution prevents nucleic acid degradation & base hydrolysis

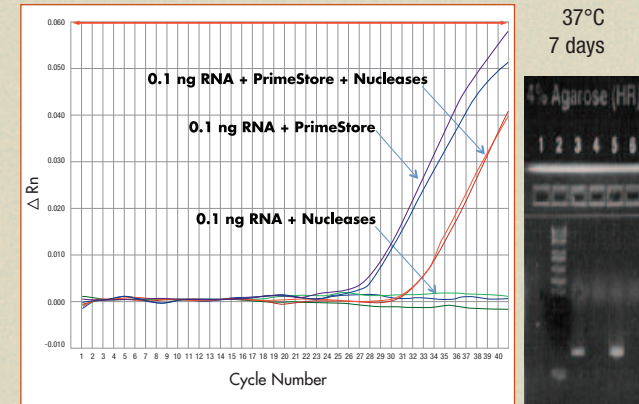


PrimeStore inhibits RNA hydrolysis

- RNA incubated at room temperature (22-26°C) in PrimeStore and H₂O
- RT-PCR amplification at Day 0 and Day 30
- A PCR fragment (1027 base pairs) amplified after storage in PrimeStore for 30 days at ambient temperature (verified by gel electrophoresis; left)
- PrimeStore preserves collected RNA and prevents RNA/DNA degradation at room temperature up to 30 days
- PCR fragments up to 1500 base pairs have been amplified after storage in PrimeStore solution for 30 days

3. PrimeStore® Inactivates Nucleases

Naked ssRNA stored in PrimeStore solution is resistant to nuclease digestion

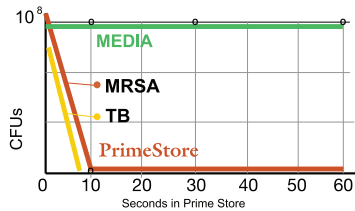


Human Nasal Wash + Spiked H5 Avian Influenza RNA

4. PrimeStore® Stabilizes

Cultured cells or naked RNA placed in PrimeStore solution were stabilized at room temperature for up to 30 days while degradation of nucleic acids occurred in other transport/storage media

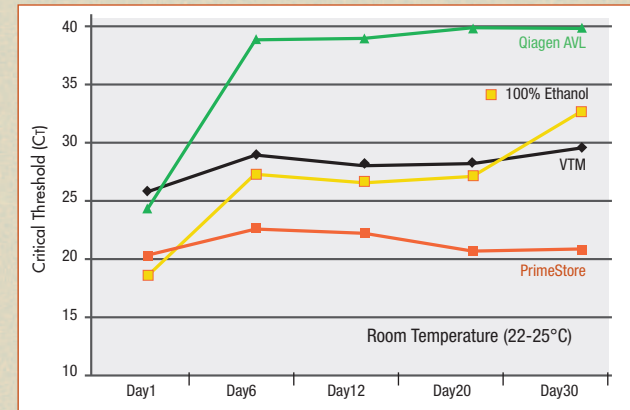
PrimeStore® Rapidly Kills *M. tuberculosis* and MRSA



After 5-10 seconds in PrimeStore NO viable TB or MRSA detected

RNA Stability in PrimeStore compared to other solutions

Ambient temperature for 30 days



Influenza A virus stored in PrimeStore, Viral Transport Media, Qiagen AVL, or ethanol for 30 days. Detection performed using real-time RT-PCR with critical threshold (Ct) values indicated.

PrimeStoreMTM™ is a 3-in-1 sample collection solution that lyses, stabilizes and preserves environmental or clinical samples for RNA/DNA analysis.