



STRECK

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Lab Notes

PrimeStore® MTM

Molecular diagnostics testing is one of the most impactful facets of modern health care. This was especially evident during the SARS-CoV-2 pandemic when billions of people worldwide depended on it to guide their response. However, the pandemic also highlighted the limitations of modern molecular diagnostics testing, with safe sample collection being a major obstacle to address. The solution? Off-site, often self-completed collection of samples that were then shipped to testing laboratories. The problem? Making sure that those samples were actually able to make it through the shipping process and remain viable for downstream testing.

If you experienced it, you probably remember it well: Swabbing your nose (and what felt like your brain) in the pharmacy drive-thru, breaking the swab in that little vial, giving it back to the pharmacy to ship to a testing lab. What is the most important step to this process? You might think it's when the sample gets sent to the lab. But it actually comes before that: When you broke your swab off into that little vial, you were ensuring the accuracy of your results. What exactly is the liquid in those vials? And what makes it so critical?

PrimeStore® MTM

Almost immediately after collection, the important nucleic acids in clinical specimens begin to degrade as they are exposed to nucleases and changes in temperature and pH. This can be an issue when these nucleic acids are used to make a diagnosis. When samples are stored in media that isn't designed for transport prior to molecular testing, they become susceptible to inaccuracies.

When we transport samples in PrimeStore® MTM (molecular transport media), we safeguard them from these complications by rapidly:

- + Degrading proteins and enzymes that can interfere with testing
- + Inactivating proteases and nucleases that can break down nucleic acids
- + Stabilizing RNA and DNA for downstream molecular testing

What samples can be stored in PrimeStore® MTM?

Blood, Plasma, Serum

Body Fluids

Swabs

Food

Vectors

Environmental

FDA Clearance for respiratory samples of Influenza A (RNA) and/or sputum samples suspected of *Mycobacterium tuberculosis* (DNA) only.





Alongside protecting clinical samples, PrimeStore® MTM makes life easier for the laboratories running the tests by:

- + Inactivating infectious biological pathogens (bacteria, viruses, fungi)
- + Allowing for ambient temperature shipping and storage
- + Having compatibility with most RNA/DNA isolation kits

The Original MTM

They say imitation is the greatest form of flattery. While the compliment is appreciated, it doesn't change the truth: There is no transport medium that offers the same results as PrimeStore® MTM*.

Critical output	PrimeStore MTM	Traditional VTM/UTM	Saline
Ambient temperature storage	Yes	No	No
Pathogen inactivation	Yes	No	No
Testing can occur outside of containment	Yes	No	No
Optimized for molecular testing	Yes	No	No
Sample integrity	Stabilizes and preserves RNA and DNA	RNA and DNA degradation	RNA and DNA degradation
Longevity prior to use	30 months	~12 months	~12 months
FDA cleared class II device for RNA and DNA	Yes	No	No

*As proven with SARS-CoV-2 and Monkeypox/Mpox by Public Health England and the United Kingdom Health Security Agency in 2020 and 2022.

Customer Success

Let's take a look at a real-world example of how PrimeStore® MTM helped Aegis® Sciences Corporation collect, inactivate, stabilize and preserve critical samples during the COVID-19 pandemic.

Collect

During the SARS-CoV-2 pandemic, Aegis received over 14 million samples collected in PrimeStore® MTM at urgent care centers, nursing homes, state departments of health, K-12 schools and Walgreens® pharmacies across the entire United States.

Inactivate

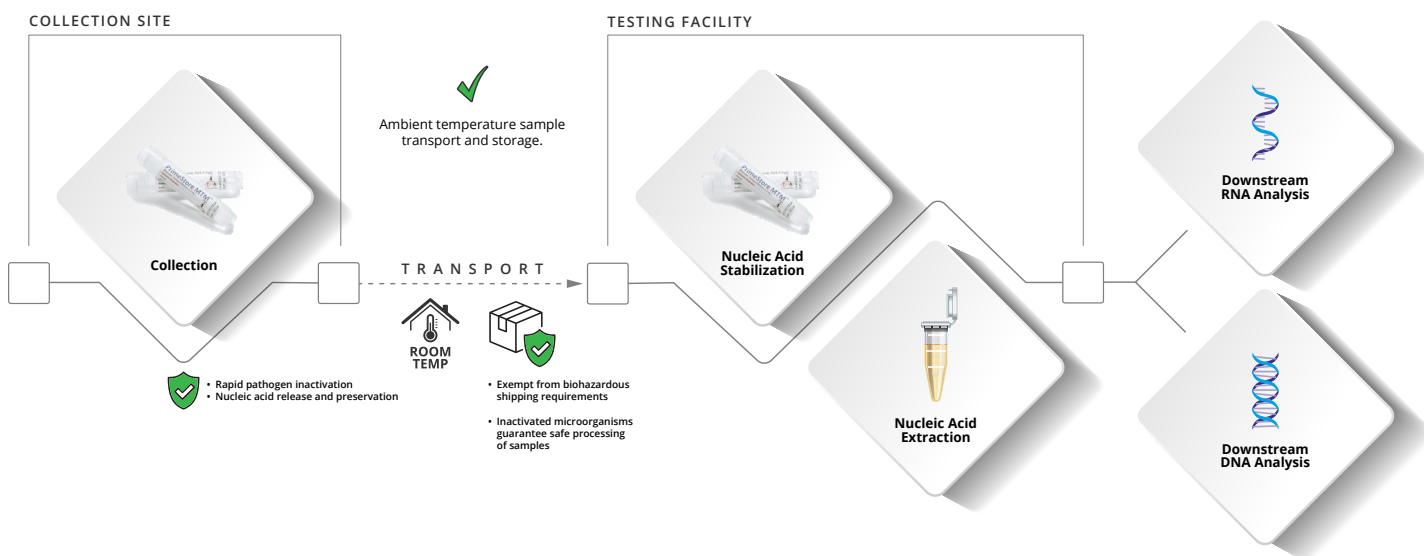
Biological samples that contain potentially infectious pathogens require specific and often expensive and time-consuming shipping and handling protocols. Collection in PrimeStore® MTM streamlined the logistics of sample shipping and handling by eliminating the need for additional biosafety measures. Aegis was able to eliminate the need for 16 biosafety cabinets, providing them with more space for sample storage and processing.

Stabilize

Because PrimeStore® MTM is formulated to stabilize the nucleic acids present in biological samples, Aegis did not have to worry about coordinating a temperature-controlled shipping strategy. Instead, all samples were transported to Nashville at ambient temperature using standard shipping and packaging options.

Preserve

The ability to biobank samples at ambient temperature meant that Aegis could take the time to standardize its sample testing process and expand its physical testing space to maximize efficiency.



"The extra time and accessibility we gained through the sample stabilization and inactivation provided by PrimeStore® MTM allowed us to expand our testing capacity to run as many tests as possible without concerns about the safety of our technicians or compromised accuracy."

— Cyndi Clark, Ph.D.
Aegis® Science Corporation

About Streck

Established in 1971, Streck develops quality control and sample stabilization products that help clinical and research laboratories worldwide feel confident in the validity of their results. Streck products are manufactured in La Vista, Nebraska, and delivered to thousands of labs worldwide.

About Longhorn Vaccines and Diagnostics

Longhorn Vaccines and Diagnostics LLC is a closely held One Health company based in Maryland that is developing broad coverage vaccines and diagnostic tools that address worldwide public health concerns with the goal to surveil, diagnose, prevent and treat future infectious disease outbreaks.

Ordering Information

Product	Configuration	Catalog Number
PrimeStore® MTM	PrimeStore® MTM 5mL (Pack of 50 tubes)	230670

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