

SALIVA-BASED MULTI-OMIC COLLECTION PLATFORM

- Proteomic & Genomic Applications
- Extended Sample Stability at Room Temperature
- Extractionless Testing with Direct Amplification
- Revolutionary Analyte Release
- Cross-Platform Capabilities



SPECTRUM
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NOVEL SALIVA MULTI-OMIC COLLECTION PLATFORM

The capabilities of Spectrum's novel saliva collection and preservation technologies continue to not only impress but amaze industry experts worldwide.

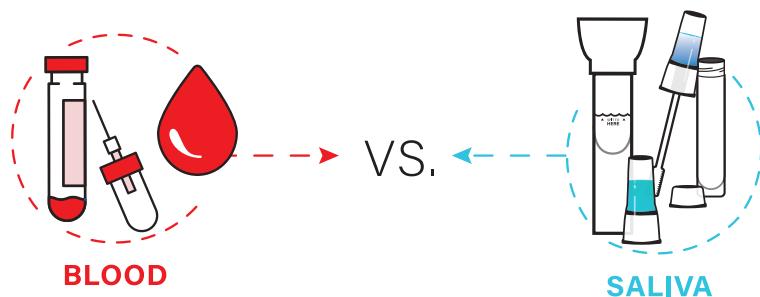
For decades, the limited ability to preserve proteins found in non-serological specimens has plagued advancements in the scientific and medical communities. Saliva contains many of the same biomarkers found in blood and is already being used for many screening applications. Analysis of the proteome from saliva has not been fully realized due to stability and reliability issues during the time of collection; this has left a large gap for those driving novel applications and clinical research targeting the general population.

The Spectrum Solutions new collection platform highlights a first-in-class preservation buffer aimed at stabilizing proteins for multiple days at room temperature, while also providing cross-platform compatibility. Remarkably, the S+MD preservation innovation has also demonstrated detection of intact cellular components for multi-omic biological analysis.

In addition to maintaining biosample consistency, independent laboratory validation of the S+MD system has additionally proven to lessens viscosity, reduces interference, increases assay reproducibility, and significantly lower costs associated with time and process inefficiencies.

EARLY DISCOVERY DATASET

Somalogic's platform is widely used as a discovery tool to screen over 7500 protein analytes. While developed using primarily serological specimens, Spectrum initially set out to demonstrate concordance with matched saliva collected in their new S+MD device.



In an exciting finding, Somalogic testing performed by an independent lab reported detection of all 7500 analytes in both saliva and serum specimens. While levels of detection will be variable, this discovery dataset provides insight into extending saliva's capabilities in diagnostic testing and disease monitoring. When mining the dataset, this includes biomarkers characterized in oncology, neurodegeneration, autoimmunity, and chronic inflammation.

DEVICE & BUFFER OVERVIEW

SALIVA COLLECTION & ANALYTE STABILIZATION FOR LDT MULTI-OMIC APPLICATIONS



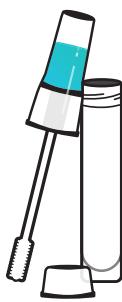
SPECIMEN COLLECTION



Salivary Expectorant Specimen Collection

and/or

Oral & Nasal Swab Specimen Collection



Viral / Pathogen (RNA)
+ Molecular Dx (DNA)

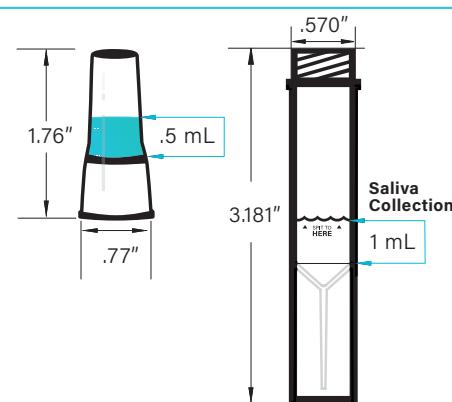
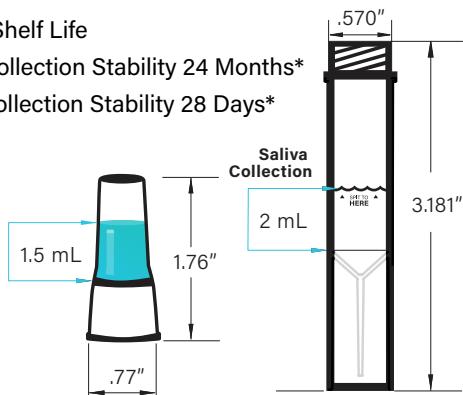
CV³

- Three-Year Shelf Life
- DNA Post-Collection Stability 24 Months*
- RNA Post-Collection Stability 28 Days*

PRESERVATION BUFFERS

Proteomic
Protein / Hormone
Extraction-less Genetics (DNA)
Expression Profiles (RNA)

S⁺M^D



First buffer purpose-built to stabilize both salivary proteins and genomic material post-collection for days at room temperature.

- SMD^{1X} Two Year Shelf Life
- SAB^{5X} 90 Day Shelf Life*
- Up to 14-Days Post-Collection Stability for Proteins***
- Over 10-Days Post-Collection Stability for DNA*

*Lab partner data with on-going evaluation & updates ** depending on protein

SALIVA vs. SEROLOGY

Over blood, saliva delivers many user advantages. Saliva collection is non-invasive, pain-free, fast, safe, easily repeatable, and cost-effective. Spectrum's saliva collection devices are designed to eliminate testing failures resulting from user error and have been engineered to lead the saliva collection market in molecular screening and diagnostic applications. In addition, the self-collection of samples makes it the ideal testing matrix for supporting direct-to-consumer (DTC) and diagnostics-as-a-service (DaaS) LDT and IVD testing applications. This self-contained saliva collection system provides critical sample consistency, quality, and supports laboratory automation for high-throughput analyses.

MEDICAL SCIENCE | COMPOUNDING PHARMACY | CLINICAL MANUFACTURING

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