

Introducing

ViveST™

ViveBIO™

A Hand in Life

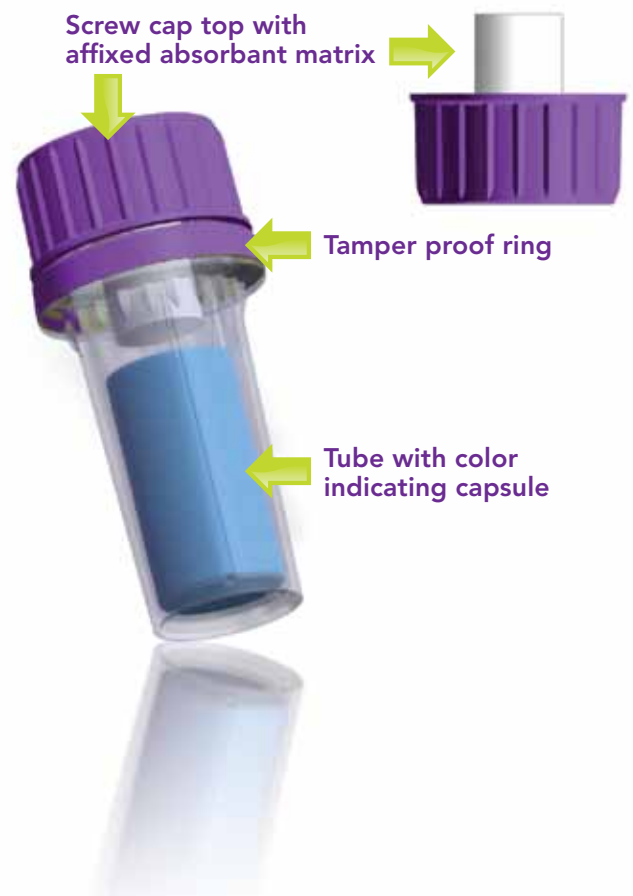
There are currently many methods for the transportation of human biological specimens. For blood, specimens can be shipped as: 1) frozen plasma or frozen serum on dry ice; 2) dry blood spots (DBS) consisting of drops of blood dried onto a piece of filter paper at ambient temperatures; or 3) whole blood, serum, or plasma at ambient temperatures or refrigerated with overnight delivery.

ViveST is the first in a series of revolutionary, dried biological sample transport systems that can dramatically alter the way in which samples are transported and stored. It is the only system that provides a dried plasma sample matrix, ambient transport and storage, built in sample quality color indicator and large sample volumes (1mL) in a single device.

ViveST combines: the benefits of DBS, convenient and economical shipping, and the quality of frozen plasma or frozen serum.

ViveST Unique Features

- Ambient sample transport and storage. Eliminates time and cost of preparing/shipping frozen samples.
- Dried sample in non infectious state. Eliminates rigorous shipping requirements for Category A and B samples.
- Easy to use: minimal steps, tamper proof cap system and sample drying quality indicator. Less labor than other systems. Color indicator flags when sample is improperly / insufficiently dried.
- 1 mL sample volume in single dried matrix. Eliminates multiple samples needed with DBS.
- Sample is plasma or serum—not RNA or DNA. No need for sample prep before transport or storage.
- Potential for wide range of sample types and testing.



ViveST Work Flow

Load Sample on
ViveST Device



Dry



Transport at
Ambient Temperature



OR



Store → Rehydrate and
Recover Sample



Test

Comparison to Other Methods

	ViveST	DBS	Frozen Plasma
1 mL Sample Volume	X		X
Dried Sample Matrix	X	X	
Noninfectious	X	X	
Ambient Transport	X	X	
Ambient Storage	X		
Sample Quality Color Indicator	X		

Comparison of Shipping Costs Between ViveST and Frozen Plasma

	ViveST	Frozen Plasma
1 Sample	\$25-75	\$170 - 231
10 Samples	\$79-130 (\$7.90 - 13.00 each)	\$195 - 256 (\$19.50 - 25.60 each)
20 Samples	\$134 - 189 (\$6.70 - 9.45 each)	\$245 - 266 (\$12.25 - 13.30 each)

"Cost Effectiveness of International Shipment of Dried Plasma for HIV Resistance Testing," Lloyd et. al., Poster, 5th IAS Conference on HIV Pathogenesis, Treatment and Prevention, Cape Town, Africa, July 2009.

ViveST Stability (HIV-1 Viral Load $\Delta\log_{10}$ copies/mL)

Temperature & Concentration		DAY 2	DAY 7	DAY 14	DAY 24	DAY 56
37° C	High Panel	5.13	5.14	4.99	4.98	4.68
	Low Panel	3.00	3.08	2.97	3.01	2.89
22° C	High Panel	5.20	5.18	5.15	5.12	5.13
	Low Panel	3.24	3.10	3.14	3.11	3.11
-85° C	High Panel	5.09	5.35	5.35	5.27	5.35
	Low Panel	3.30	3.27	3.35	3.21	3.27

"Stability of HIV-1 Viral Load from Dried Plasma Using SampleTanker®, A Novel Dried Transportation Matrix," Lloyd et. al., Poster, 24th Clinical Virology Symposium, Daytona Beach, FL, 2009.

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