



# TELIMMUNE PLASMA SEPARATION CARDS

## Why Telimmune?

Traditional plasma analysis has been done through fractionation processes that require venipuncture, cold chain transport, biohazard mitigation, and then centrifugation to produce a specimen suitable for analysis. This is an invasive, time-consuming, and expensive value proposition.

Telimmune was founded under the premise that there must be a better way to prepare volumetric plasma samples.

Our solution requires a simple fingerstick and collects a ~3  $\mu$ L aliquot of plasma from  $\geq 25 \mu$ L of whole blood in three minutes. The samples then stabilize for shipping in just 15 minutes.

Sampling Technology	Collection Method	Blood Volume	Assay	Volumetric Plasma Collection	Storage and Transport	Suitability for Field Sampling	No Sample Prep Before Analysis	Non - Biohazard	Hematocrit Independent	No RBC Assay Interference
<b>Telimmune™</b>	Fingerstick or Lancet	25-60 $\mu$ L	Plasma	Yes, $\approx 3 \mu$ L per Disc	Room Temp / Dry Mail	✓	✓	✓	✓	✓
DBS Cards	Fingerstick or Lancet	Typically $\geq 100 \mu$ L	Dried Whole Blood	X	Room Temp / Dry Mail	✓	X	✓	X	X
Whole Blood Microtube	Fingerstick or Lancet	$\geq 5 \mu$ L	Plasma or Serum	X	$\leq 42^\circ$ F Liquid	Marginal	X Centrifuge	X	X	✓
Intravenous Blood Tube	Needles	20,000 $\mu$ L	Plasma or Serum	Yes, but variable measurement	$\leq 42^\circ$ F Liquid	X	X Centrifuge	X	✓	✓

**Green = Product Benefit, Red = Product Deficit, Yellow = Neutral**



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## **X-Axis Definitions and/or Benefits**

**Collection Method:** A fingerstick isn't as invasive as venipuncture.

**Blood Volume:** Telimmune has a lower collection volume than venipuncture and standard DBS cards.

**Assay:** Most blood tests are done on plasma, meaning this needs to somehow be separated from red blood cells. Telimmune does this without a power source through filtration.

**Volumetric Plasma Collection:** A standardized measurement of plasma from Telimmune cards allows researchers to compare apples to apples.

**Storage & Transport:** Room temperature storage and non-biohazard transportation are convenient and major advantages in remote locations that are often absent of power.

**Suitability for Field Sampling:** We believe that the storage and volume benefits of our cards are superior to all other plasma collection methods.

**Sample Prep:** Telimmune cards prepare a plasma sample automatically through filtration and may eliminate additional prep work.

**Non-Biohazard:** Telimmune Plasma Separation Cards are registered as a Class I medical device.

**Hematocrit Independent:** Hematocrit is the space red blood cells take up. Individuals have different amounts of red blood cells per volume, and this creates uncertainty when testing on diagnostics. By separating out the red blood cells, Telimmune cards eliminate this potential testing bias.

**No RBC Assay Interference:** The presence of red blood cells (RBCs) can potentially interfere with the accuracy of different assays. This is not a problem for Telimmune cards as RBCs are filtered out within three minutes.