Noviplex™ Plasma Prep Cards

The next generation in blood processing

Finally, a simple and easy method to prepare blood samples for analysis.

Collect blood samples anytime and anywhere!

Blood drops to dried plasma in just minutes.
Noviplex™ Plasma Prep Card

Simplify the preparation of blood samples for analysis.

Noviplex™ Plasma Prep Cards convert a drop or two of blood into plasma in just 3 minutes without centrifugation or any power source. Collect and process your blood specimen, anytime and anywhere.

The one-time use cards are ideal for specimen collection in remote regions and point-of-care facilities. Noviplex cards collect blood with the simplicity of dried blood spots with unique advantages. Unlike dried blood spot cards Noviplex cards produce a defined volume of plasma regardless of the amount of blood applied or the hematocrit. There is no spot punching required with Noviplex cards, just collect specimen, then mail.

Vitamin D Analysis
Transfer plasma disc to a vial, add extraction solvents and analyze by LC/MS. Recoveries are typically 80% or better and sensitivity is as low as a picogram on disc.

Collect a constant volume of plasma regardless of the blood volume applied or the hematocrit.

| Vitamin D | Noviplex Plasma Prep Card
<table>
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<tbody>
<tr>
<td>Whole Blood, Free-flowing</td>
<td></td>
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<tr>
<td>30 µL Applied Blood, one drop</td>
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<tr>
<td>2.52 ± 0.03 µL</td>
<td>2.57 ± 0.02 µL</td>
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High hematocrit levels increase the viscosity of blood, but do not affect the volume of plasma collected with a Noviplex card.

<table>
<thead>
<tr>
<th>Hematocrit</th>
<th>Plasma Volume</th>
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<tbody>
<tr>
<td>20%</td>
<td>2.50 ± 0.02 µL</td>
</tr>
<tr>
<td>41%</td>
<td>2.57 ± 0.02 µL</td>
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<tr>
<td>71%</td>
<td>2.48 ± 0.08 µL</td>
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Vitamin D

Hematocrit: red blood cell volume, typically, 41%
Noviplex Duo divides a blood sample without a pipette!

The Duo plasma card splits the blood deposited in the center of the card in two directions. Both collection pads absorb the same amount of plasma from the accumulation sector.

**Typical Noviplex Plasma Card Applications**

Tandem LC/MS is ideal for the high-sensitivity analysis of many drugs and metabolites. Simply place the sample disc in extraction solvent and inject the recovered plasma analytes.

**Acetaminophen Analysis**

With the Noviplex plasma card. Triplicate injections monitoring the 151 to 109 m/z transition.

**MALDI Analysis of Proteins Directly on Plasma Disc**

Just add matrix to the plasma disc and let it dry. Insert the plasma disc into the sample tray for the MALDI-TOF instrument and collect spectra.

**Vitamin D analysis with the Duo by LC/MS is sensitive, accurate and precise using the isotope dilution method.**

**Noviplex Duo Plasma Card** quickly removes blood cells from two drops of blood and collects two equivalent plasma samples.
Noviplex Cards are ideal for analysis by mass spectrometry which can quantify picogram amounts of compounds on the plasma disc.
Compounds can be extracted for injection into a mass spectrometer or analyzed directly by a solid surface. The Noviplex cards are compatible with:

**MALDI/TOF Systems**
Matrix Assisted Laser Desorption Ionization with a Time-of-Flight mass spectrometer. Ideal for analysis of intact proteins, peptides, and small molecules.

**Noviplex Duo Cards** are ideal for analysis of both organic and inorganic species.
Sample preparation for metal analysis requires strong acid that degrades organic compounds. But with the Duo, one disc goes for inorganic, the other for organic analysis.

**ICP/MS Systems**
Inductively Coupled Plasma systems convert molecules to their elemental state. Ideal for the analysis of both trace and common metal ions in plasma samples.

**Tandem LC/MS Systems**
Triple Quadrupole based mass spectrometers that achieve high sensitivity by monitoring specific ion transitions.

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Simplifying Blood Preparation for Analysis

Contact Novilytic at info@novilytic.com for a free application guide or price quote.

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