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Agilent Technologies

Agilent Captiva ND and Captiva ND*Lipids* method guide

General Instructions for Use

Captiva ND

A simple to use filtration device designed for high throughput, automated, in-well protein precipitation. Built with a unique non-drip (ND) membrane, Captiva ND plates allow for solvent-first protein precipitation using methanol or acetonitrile. Captiva's unique dual filter design offers fast uniform flow while avoiding sample loss and filter plugging.

Captiva ND*Lipids*

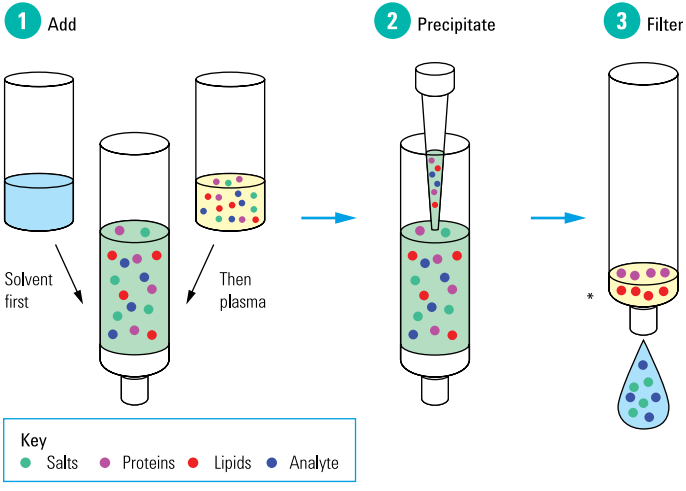
Specifically designed for LC/MS bioanalysis of plasma, Captiva ND*Lipids* combines the ease of use and superior flow properties of Captiva ND with a unique chemical filter. The plate efficiently removes ion-suppressing phospholipids, proteins, and surfactant interferences from precipitated plasma samples.

The Measure of Confidence

Agilent Technologies

This method guide describes how to efficiently use the Captiva ND filtration device and Captiva ND^{Lipids} phospholipid and protein filtration plate.

Operating Instructions and tips for Captiva ND and Captiva ND^{Lipids} 96 -Well Plates



* Note: The diagram shows lipids being extracted on the Captiva ND^{Lipids} product. Captiva ND does not remove lipids.

User Tips

	Captiva ND	Captiva ND^{Lipids}
Sample	Between 50–200 µL plasma	
Crash solvent/ ratio	Between 3:1 and 10:1 ACN or methanol to plasma	3:1 methanol to plasma is recommended for optimal lipid removal For basic compounds 0.1% formic acid in MeOH is recommended For highly hydrophobic compounds up to 0.5% formic acid may be used, but sample gelation may occur
Addition order	Organic crash solvent followed by plasma	Acid modified crash solvent followed by plasma
Mixing	For thorough precipitation, pipette mixing is recommended 3 to 5 pipette aspirations of 3/4 combined liquid volume is sufficient to thoroughly precipitate plasma proteins Orbital/vortex mixing is less effective	
Filtration	Vacuum between 7-15 in Hg (179 - 381 mm Hg) Thoroughly dry the filter cake Flow rate is highly dependent on plasma type, age, and mixing	
Recovered volume	Expected collection volume is approximately 75% of the combined volumes The majority of volume reduction comes from the precipitation and removal of proteins	