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# Agilent Captiva ND and Captiva ND<sup>Lipids</sup> 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<sup>Lipids</sup>

Specifically designed for LC/MS bioanalysis of plasma, Captiva ND<sup>Lipids</sup> 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.

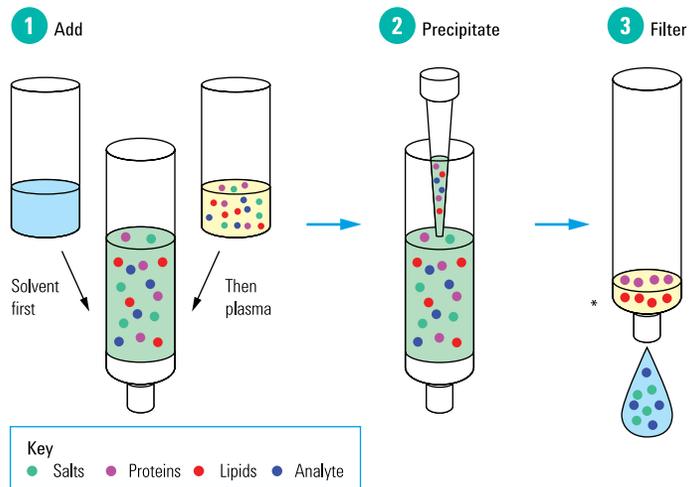
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This method guide describes how to efficiently use the Captiva ND filtration device and Captiva ND<sup>Lipids</sup> phospholipid and protein filtration plate.

## Operating Instructions and tips for Captiva ND and Captiva ND<sup>Lipids</sup> 96 -Well Plates



\* Note: The diagram shows lipids being extracted on the Captiva ND<sup>Lipids</sup> product. Captiva ND does not remove lipids.

## User Tips

	Captiva ND	Captiva ND <sup>Lipids</sup>
<b>Sample</b>	Between 50–200 µL plasma	
<b>Crash solvent/ratio</b>	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
<b>Addition order</b>	Organic crash solvent followed by plasma	Acid modified crash solvent followed by plasma
<b>Mixing</b>	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	
<b>Filtration</b>	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	
<b>Recovered volume</b>	Expected collection volume is approximately 75% of the combined volumes The majority of volume reduction comes from the precipitation and removal of proteins	