

SPEED AND CONVENIENCE TO SIMPLIFY YOUR SAMPLE PREP WORKFLOW

The Measure of Confidence

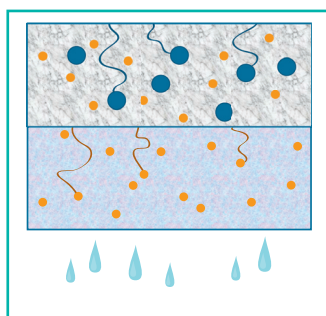
Captiva non-drip (ND) and ND Lipids now available in single cartridges



Agilent Captiva ND and ND Lipids filter plates and cartridges provide a time-saving, cost-effective solution for your lab

The ever-increasing sensitivity of today's MS instruments allows labs to take advantage of the speed and productivity of rapid protein precipitation and/or lipid removal. Agilent Captiva ND and ND Lipids filter plates and new 3 mL cartridges are designed to simplify your workflow and make particulate removal, protein precipitation, and lipid removal more user-friendly.

The unique non-drip design simplifies your workflow with in-well precipitation, ends the need to use messy tip or well seals, and reduces the number of liquid transfer steps needed to process samples. You decide when it is convenient to apply vacuum; until then, the non-drip filter prevents flow.



Captiva's Dual-depth Filter (layers enlarged above): The two filter layers have different porosities, capturing large particulates first, then the small particulates. There is no clogging due to the non-linear path that the particulates must follow.

The lipid-removing feature of Captiva ND Lipids is specifically designed for LC/MS analysis, efficiently removing ion-suppressing phospholipids. Best of all, their dual-depth filter construction delivers a fast reproducible flow, so you get uniform sample treatment and reliable filtrate recovery in a fraction of the time of other protein precipitation plates.

Agilent Captiva ND and ND Lipids filter plates and 3 mL cartridges for sample filtration provide:

- **Easy automation:** 96-well plates resist organic solvent flow until vacuum is applied
- **Exceptional flow:** dual-depth filter avoids plugged membranes and lost samples
- **Efficient and fast protein and lipid removal:** MS suitable samples in as little as one-fifth the time
- **Extends column lifetime/reduces instrument downtime:** minimizes column and system backpressure issues, saving time and money on chromatography system maintenance
- **The right format for your needs:** 96-well formats for automation and throughput, and 3 mL cartridges with Luer tips for increased sample volume requirements

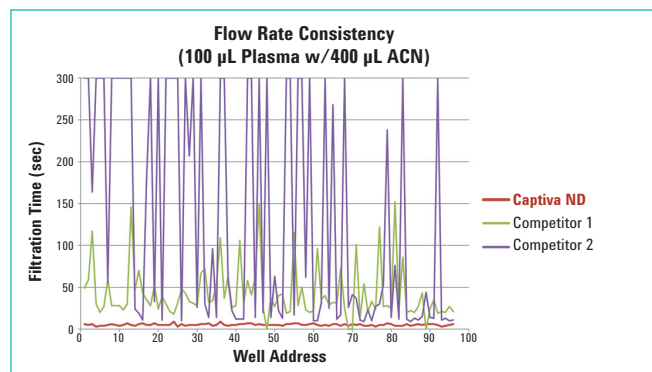
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Agilent Technologies

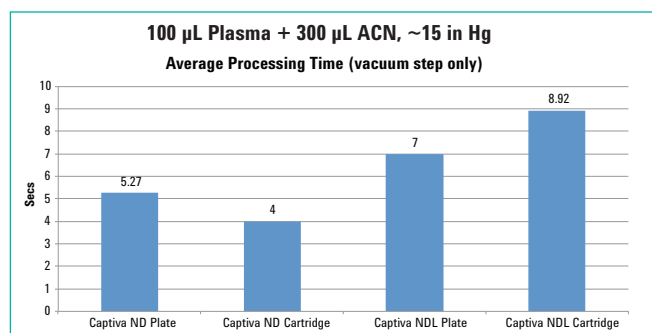
Consistent performance for your sensitive analyses

Get fast, reproducible flow with Agilent Captiva ND



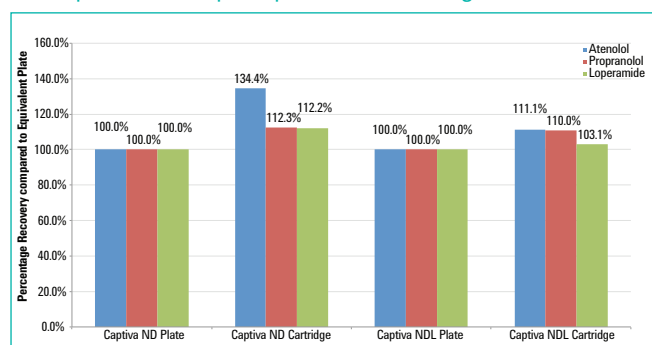
Agilent Captiva ND plates process samples quickly and uniformly without the need for positive pressure manifolds. Plus, its uniform flow facilitates vacuum processing making it more automation friendly.

Captiva ND plates and 3 mL single cartridges show comparable processing time (flow)



Sample flows through all products quickly and easily, with no clogging.

Achieve good recovery of target analytes with Captiva ND: a comparison of Captiva plates and cartridges

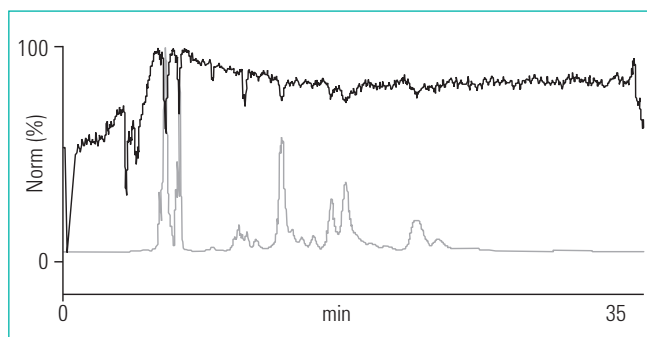


Good correlation exists for analyte recovery when Captiva 3 mL cartridges are compared to 96-well plates. These plates were used as the standard, so their recoveries are 100%.

Note: NDL cartridge contains 3x more lipid stripping sorbent than the NDL Plate.
Plates: 100 μ L Plasma sample size
Cartridges: 500 μ L Plasma sample size

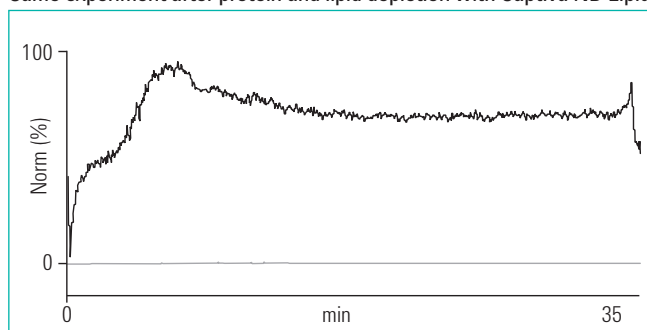
Reduce ion suppression with Captiva ND Lipids plates

Post-Column Infusion (PCI) of Albuterol before treatment with Captiva ND Lipids plates



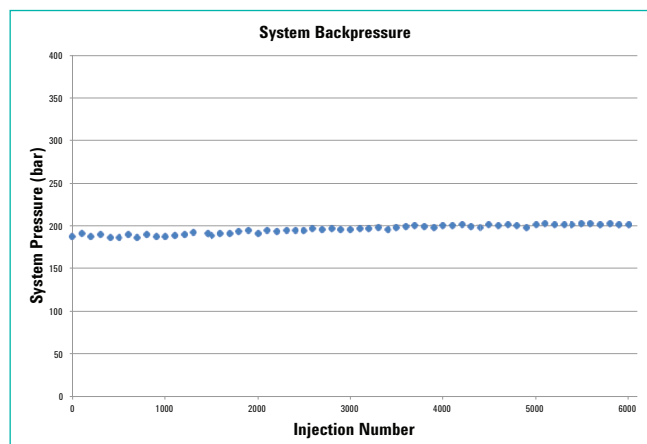
Note that the ion-suppression features (top trace) correlate with the elution of phospholipids (bottom trace).

Same experiment after protein and lipid depletion with Captiva ND Lipids



Ion suppression is dramatically reduced and the lipids are almost non-detectable.

Well suited for high throughput LC/MS applications

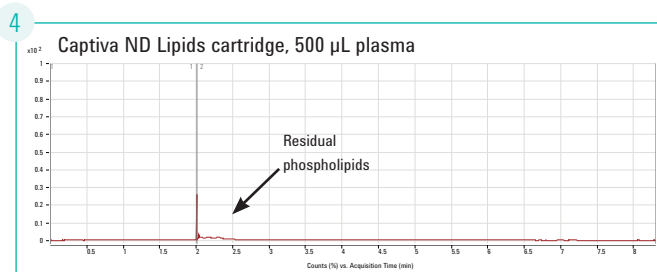
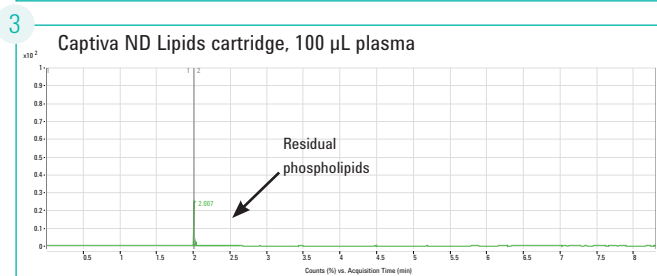
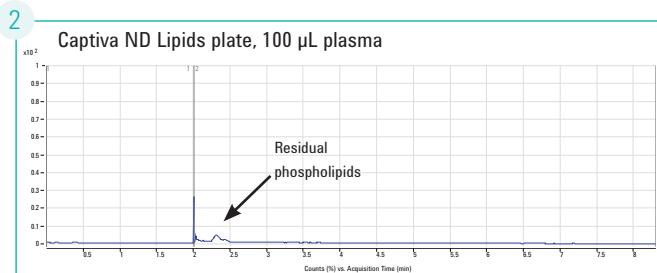
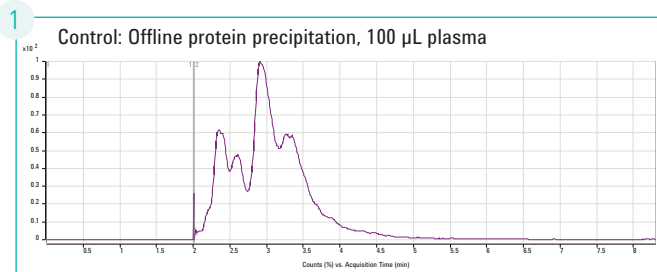


Shown here is backpressure build-up during 6,000 continuous injections of human plasma samples cleaned by Captiva ND Lipids plates. A UHPLC system and UHPLC column were used to process the samples. Result: Filtration with Captiva ND Lipids led to minimal system backpressure build-up (~7%) for entire 6,000 injections.

Confidently remove proteins and ion-suppressing lipids

Lipid removal, determined by LC/MS/MS, demonstrates Captiva's efficiency

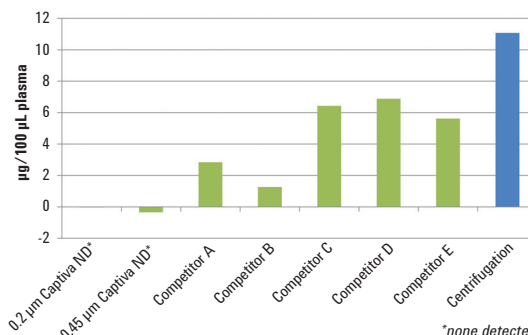
Obtain outstanding protein removal (Captiva ND 96-well plate study)



Using an Agilent 1260 LC module with a 6460 QQQ LC/MS/MS, these chromatograms are measuring residual Phospholipids in plasma. Phospholipids are the typical culprit in ion suppression problems, so their removal is critical.

The images demonstrate that lipid removal of the Single Cartridges is over 98% complete, and correlates well to the Captiva ND Lipids 96-well plate. On these chromatograms, notice the peaks just after the 2 minute mark: this is the residual phospholipid level.

Determination of Protein by Bradford Assay



Average protein content post precipitation of a 100 μ L human plasma sample (n=24, 4:1 ACN Precipitation) among plate manufacturers and techniques.

Try these other Captiva workflow solutions:

- Captiva ND Lipids protein precipitation plates for removing ion-suppressing lipids and surfactant interferences from biofluids
- Captiva ND 96-well filter plates for removing proteins and particulates via vacuum for efficient sample preparation
- Captiva ND and ND Lipids 3 mL cartridges are single-sample versions of the plates
- Captiva 96-well filter plates for general lab filtration
- Captiva filter cartridges for general lab filtration
- Captiva syringe filters, offering a variety of membranes depending on solvent preference or pore size
- See the full line of Agilent manifolds and accessories to discover the best products for your lab
- Poroshell 120 HPLC columns resist plugging and provide speed and resolution for the best results when analyzing your Captiva ND sample

Only Agilent offers a complete line of sample preparation products for any type of analysis, filtration, purification, and SPE across the full spectrum of instrumentation – GC, LC, GC/MS, and LC/MS. Learn more about Agilent Sample Prep Solutions at [agilent.com/chem/sampleprep](https://www.agilent.com/chem/sampleprep)

Order your Agilent Captiva ND products now

Captiva ND Filter Plates

Description	Unit	Part No.
Captiva ND 96-well Filter Plates		
Captiva ND plate, 0.2 µm, polypropylene Recommended for both methanol and acetonitrile	5/pk	A5969002
Captiva ND plate, 0.45 µm, polypropylene Suitable for acetonitrile only	5/pk	A5969045
Captiva ND Lipids 96-well Filter Plates		
Captiva ND Lipids 96-well filtration starter kit Includes: 1 CaptiVac vacuum collar, 2 Captiva ND Lipids filter plates, 2 Captiva 96 deep-well 1 mL collection plates, and 2 Captiva collection plate pierceable covers		A59640002SK
Captiva ND Lipids 96-well filtration replacement kit Includes: 2 Captiva ND Lipids filter plates, 2 Captiva 96 deep-well 1 mL collection plates, and 2 Captiva collection plate pierceable covers		A59640002RK
Captiva ND Lipids 96-well filter plate, 1 mL well	1/pk	A59640002I
Captiva ND Lipids 96-well filter plates, 1 mL well	5/pk	A59640002V
Captiva ND Lipids 96-well filtration plates	100/pk	A59640002B

Captiva 96-well Collection Plates and Cover

Description	Unit	Part No.
Captiva 96-deep well collection plate, 1 mL	10/pk	A696001000
Captiva 96-deep well collection plate, 1 mL	100/pk	A696001000B
Captiva pierceable 96-deep well collection plate cover, 1 mL	10/pk	A8961007
DuoSeal 96 96-well plate seal	10/pk	A8961008

CaptiVac Vacuum Collar

Description	Unit	Part No.
CaptiVac vacuum collar		A796
CaptiVac gasket kit	5/pk	A796G

Captiva ND Filter Cartridges (NEW)

Pore Size (µm)	Filter Material	Volume (mL)	Unit	Part No.
ND cartridges				
.22	Polypropylene	3	20/pk	A5300263
.22	Polypropylene	3	100/pk	A5300063
ND Lipids cartridges				
.22	Polypropylene	3	20/pk	A5302635
.22	Polypropylene	3	100/pk	A5300635

Vac Elut SPS 24 Manifold

Description	Part No.
Vac Elut SPS 24 manifold with collection rack for 10 x 75 mm test tubes	12234003
Vac Elut SPS 24 manifold with collection rack for 12 x 75 mm test tubes	12234041
Vac Elut SPS 24 manifold with collection rack for 13 x 100 mm test tubes	12234022
Vac Elut SPS 24 manifold with collection rack for 16 x 100 mm test tubes	12234004
Replacement Components	
Collection rack and funnel set for 12 or 15 mL conical tubes	12234027
Collection rack and funnel set for 12 x 75 mm test tubes	12234030
Collection rack and funnel set for 13 x 100 mm test tubes	12234031
Collection rack and funnel set for 16 x 100 mm test tubes	12234028
Elastic lid fasteners, 6/pk	12234034
Complete upper lid assembly	12234025C
SPS 24 upper lid cover	12234025
SPS 24 waste tower repair kit Includes: base exit tube, hose connector, washer, center tube, and 900 connector elbow	12234005
Stainless steel delivery needles, 25/pk	12234038



Captiva Single Cartridges



Vac Elut SPS 24 Manifold

Learn more about Agilent Captiva ND and ND Lipid filter plates and 3 mL cartridges at agilent.com/chem/Captiva

To find your local Agilent Representative or Agilent Authorized Distributor, go to agilent.com/chem/contactus



Use your QR smartphone reader to learn more about Agilent Sample Prep Solutions

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