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# Finally an Easier Solution for Protein Precipitation

Protein Precipitation Plate





# **Rapid Protein Precipitation without the Complications**

## **Fast Analysis**

- Save time and increase efficiency by performing precipitation and filtration sequentially in the same plate
- Fast, easy to follow protocol; clean 96 samples in under 15 minutes
- Automatable process for higher productivity

## **Peace of Mind**

- Filtering instead of pelleting precipitated protein ensures clean samples without additional transfer steps
- Avoid injecting protein onto your column resulting in longer column lifetime and improved chromatography

## No More Filtrate Transfer Steps

- No manual or automated filtrate transfer steps required
- Reduce errors and risk of contamination





Square well design that is compatible with common vacuum manifolds and automated workstations

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2 mL well for large or small sample volumes



Specially treated filters effectively hold organic solvent and trap protein precipitates



# Protein Precipitation Plate

Impact protein precipitation plates with Solvent Shielding Technology<sup>™</sup> offer a rapid and convenient way to remove proteins from plasma and tissue samples prior to analysis. The Solvent Shielding Technology design will withold organic solvents above the filter membranes for up to 25 minutes, allowing for direct in-well precipitation upon sample addition. The precipitate is then filtered out via vacuum, centrifuge or positive pressure resulting in a clean, protein depleted extract



2



# **Designed to Eliminate the Problems of Conventional Filter Plates**

## Leak-Free Protein Precipitation The oleophobic

filters of the Impact plates effectively hold organic solvent allowing the precipitation reaction to occur inside the plate. Unlike conventional protein precipitation plates, Impact will not leak solvent or sample until force is applied resulting in clean precipitation.



# **Versatility** The unique Impact filters allow plasma and homogenized tissue samples to be precipitated using either acetonitrile or methanol.

**Maximized Recovery** Non-specific binding of analytes on the membrane surface leads to reduced analyte recovery. Impact has specially treated filters, which will not bind target analytes resulting in maximized recovery.

**Better Throughput** Impact allows for direct-in-plate precipitation, which reduces the amount of sample transfer steps. This means that solvent and sample can be combined directly in the well without the plate leaking leading to increased throughput.

## High Recoveries of Acids, Bases and Neutrals



#### Absolute Recoveries of Spiked Plasma Samples (n=4)



### Phenomenex Impact vs. \*Waters<sup>®</sup> Sirocco<sup>™</sup>



#### Absolute Recovery of Analytes from Tissue Homogenate

Analyte	Phenomenex Impact	*Waters® Sirocco™
Diclofenac	71%	46%
Naproxen	74 %	48%
Amitriptyline	75%	51 %
Metoprolol	68%	49%
Acetaminophen	74 %	47%
Prednisone	77%	54%

Phenomenex Impact

Waters® Sirocco™

\*Sirocco is a trademark of Waters Corporation. Phenomenex is not affiliated with Waters Corporation. Comparative separations may not be representative of all applications.





## **Process 96 Plasma or Tissue Samples At Once**

- · Direct-in-plate precipitation and filtration for faster analysis
- No resuspension of pelleted protein
- Versatile solvent compatibility; precipitate with acetonitrile or methanol
- · Efficient precipitation with no cross-contamination or clogging



## Watch how easy it is right now! Or visit www.phenomenex.com/impactbr to view the video demonstration.

\* A 3:1 v/v ratio of organic solvent to biological sample will dilute your sample less. In contrast, a 4:1 v/v ratio of organic solvent to biological sample will ensure a more complete precipitation. A 4:1 v/v ratio is recommended when using methanol.

*†* When used with a liquid-handling instrument or automation, aspirate/dispense cycles may be used to promote in-tip mixing and precipitation. This will ensure complete precipitation and filtration. Vortexing is not necessary when in-tip precipitation is performed.



#### **Product Specifications**

Impact Plates	
Recommended Organic Solvents	Acetonitrile Methanol
Recommended Biological Samples	Plasma Tissue homogenate
Maximum Biological Sample Volume	400 µL
Recommended Minimum Organic Solvent : Biological Sample Ratio	3:1 to 4:1 (v/v)
Maximum Total Combined Liquid Volume (Organic Solvent plus Biological Sample)	1.6 mL
Leak Resistant Time	Up to 25 minutes with no vacuum/pressure

#### **Ordering Information**

Part No.	Description	Unit/Box	Price
Impact Preci			
CE0-7565	Impact Protein Precipitation, Square Well, Filter Plate, 2 mL	2/Box	
Protein Start	er Kit for Protein Precipitation		
CE0-8201	Impact Protein Precipitation Plate (2 ea) Collection Plate 2 mL (2 ea) Sealing Mat, Santoprene™ (2 ea)	2 ea	
Manifolds, Co	ollection Plates and Sealing Mats		
AH0-8950	Strata® 96-Well Plate Manifold, Universal with Vacuum Gauge	ea	
AH0-7192	Strata 96-Well Collection Plate, 350 µL Conical Polypropylene	50/pk	
AH0-7193	Strata 96-Well Collection Plate, 1 mL Conical, Polypropylene	50/pk	
AH0-7194	Strata 96-Well Collection Plate, 2 mL Conical, Polypropylene	50/pk	
AH0-7279	Strata 96-Well Collection Plate, 1 mL Round, 7 mm, Polypropylene	50/pk	
AH0-8635	Strata 96-Well Collection Plate, 2 mL Square/Round-Conical, Polypropylene	50/pk	
AH0-8636	Strata 96-Well Collection Plate, 2 mL Round/Round, 8 mm, Polypropylene	50/pk	
AH0-8597	Sealing Mats, Pierceable, 96 Square Well, Silicone	50/pk	
AH0-8598	Sealing Mats, Pre-Slit, 96-Square Well, Silicone	50/pk	

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#### Disclaimer

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#### For any guestions, assistance, or troubleshooting please contact your Sample Preparation Specialist at Phenomenex.



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If Impact does not perform as well or better than your current protein precipitation plate with similar specifications, return the product with comparative data within 45 days for a FULL REFUND.

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# **Rapid Protein Precipitation without the Complications**

No More
Dirty Samples



No More Transfer Steps



No More
Long Waiting



Finally an Easier Solution for Protein Precipitation