How to Use ISOLUTE® PLD+ Protein and Phospholipid Depletion Plates

ISOLUTE® PLD+ plates provide extremely efficient removal of proteins and phospholipids from blood based samples using a simple 3 step procedure.

Recommended Operating Procedure

Before you start, ensure collection plate is in position.

1. Dispense 300–400 µL crash solvent into each well. No dripping will occur.
2. Dispense 100 µL sample (e.g. serum, plasma, whole blood) into each well. To ensure full protein precipitation and avoid cloudy extracts, it is important to achieve efficient mixing on sample addition. This can be achieved by:
   a. Vortex mix: 30s-1min, or
   b. Aspirate/dispense: 3–4 cycles, or
   c. Dispense sample vertically into well, with force, and wait 5 minutes
3. Apply vacuum or positive pressure until sample is fully eluted (5 mins).

Recommended Crash Solvent

Acetonitrile or acetonitrile containing 1% (v/v) formic acid. Methanol or acidified methanol is also suitable.

See FAQ's (www.biotage.com) for further information on maximizing analyte recovery.

Mixing

If insufficient mixing occurs on sample addition, proteins will not precipitate efficiently in the well. This can lead to turbidity (cloudiness) in extracts or well blockage during processing.

Positive pressure processing:

Recommended pressure: 3 psi. When processing using Biotage® Extrahera™, set to 0.3–0.4 bar, for 6 minutes.

Vacuum processing:

Recommended vacuum: -0.2 bar

For maximum phospholipid removal, do not exceed these vacuum/pressure conditions. For very viscous samples, a slight increase in pressure or vacuum may be required. The use of high vacuum/pressure conditions may lead to breakthrough of matrix components.

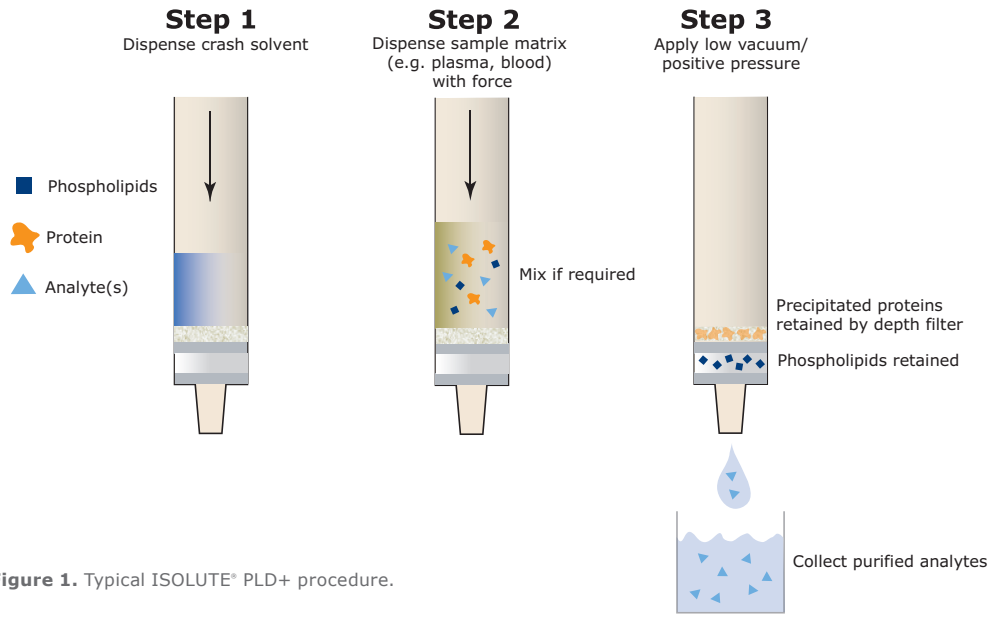

Figure 1. Typical ISOLUTE® PLD+ procedure.

Biotage®

Ordering Information

Part Number	Description	Quantity
918-0050-P01	ISOLUTE® PLD+ Protein and Phospholipid Removal Plate	1
Accessories		
121-5202	Collection plate, 1 mL, square	50
121-5203	Collection plate, 2 mL, square	50
121-5213	Collection plate, 2 mL, round	50
121-5204	Piercable sealing cap	50
Vacuum processing		
121-9600	Biotage® VacMaster™-96 sample Processing manifold	1
121-9601	VacMaster VCU-1 Vacuum Control Unit	1
121-9602	VacMaster VCU-2 Vacuum Control and Generation Unit	1
Positive pressure processing		
PPM-96	Biotage® PRESSURE+ Positive Pressure Manifold, 96 position	1

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To locate a distributor,
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Part Number: U1314.V.1

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