

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

ISOLUTE® PLD+ columns 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 vessel is in position.

1. Dispense 300–400 μL crash solvent into each column. No dripping will occur.
2. Dispense 100 μL sample (e.g. serum, plasma, whole blood) into each column. 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 column, 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.

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. This can lead to turbidity (cloudiness) in extracts or blockage during processing.

Positive pressure processing:

Recommended pressure: 2 psi. When processing using Biotage® Extrahera™, set to 0.3–0.4 bar, for 6 minutes.

Vacuum processing:

Recommended vacuum: -0.1 to -0.15 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.

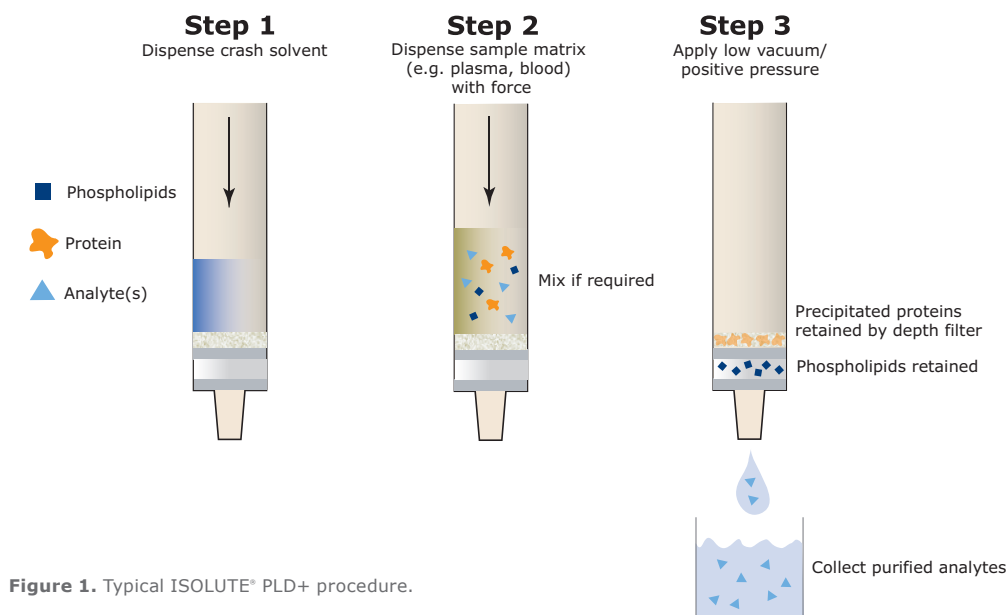


Figure 1. Typical ISOLUTE® PLD+ procedure.

Ordering Information

| Part Number | Description | Quantity |
|-------------------------------------|--|----------|
| 918-0005-AG | ISOLUTE® PLD+ Protein and Phospholipid Removal Columns 50 mg/1 mL (tablets) | 100 |
| 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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Part Number: U1329.V.1

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For more information visit www.biotage.com.