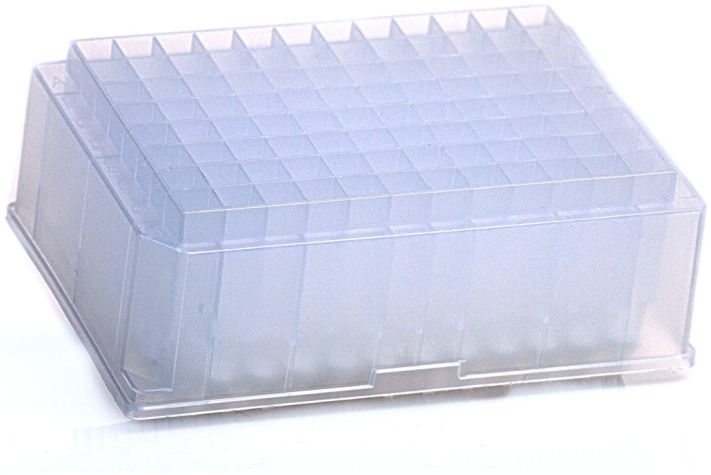
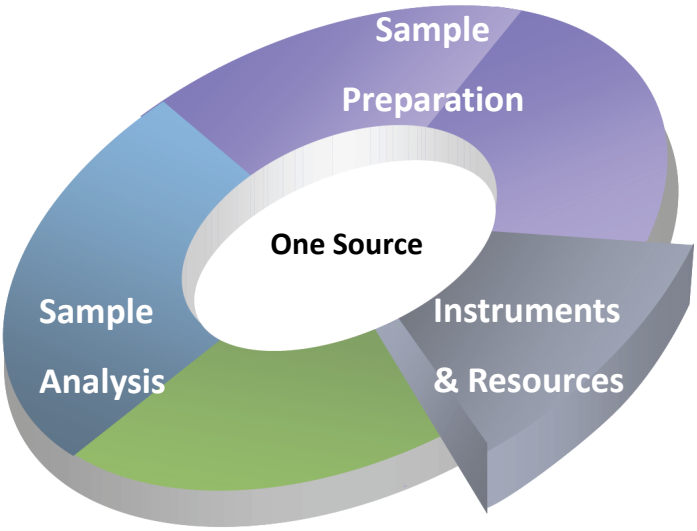
Purity™ Phospholipid depletion products

Purity™ is the unique Phospholipid depletion device which individually integrates screen filtration with the targeted removal of phospholipids and proteins in plasma/serum. The technology utilizes Acidic particles which exhibit selective affinity towards phospholipids while remaining non-selective towards a range of basic, neutral and acidic compounds. The phospholipid retention mechanism is based on highly selective Lewis acid-base interaction between the ions (functionally bonded to the SPE stationary phase) and the phosphate moiety consistent with all phospholipids. It eliminates ion suppression through protein precipitation and phospholipid removal.





Protocol 1:

1. Precipitate Proteins by adding 300 µL of 1% formic acid in acetonitrile to the Phospholipid removal plate or spin column, followed by 100µL plasma or serum.
2. Mix by vortexing /shaking plate or by aspirating or dispensing with 0.5 -1mL pipette tip.
3. Apply Positive Pressure or Vacuum- The packed-bed filter / frit assembly acts as a depth filter for the concurrent physical removal of precipitated proteins and phospholipids. Small molecules (e.g. pharma compounds and metabolites) pass through unretained.

Protocol 2:

1. Add plasma and crash solvent in desired ratio for optimal lipid and protein removal, 3:1 methanol to plasma ratio is recommended. Modification of pH can be made to ionize the analyte of interest. For basic compounds, we recommend 0.1% to 1.0% formic acid in methanol. For acidic compounds, we recommend 5mM to 10mM ammonium formate buffers at pH 9.
2. Mix by vortexing / shaking plate or by aspirating / dispensing with 0.5 - 1mL pipette tip.
3. Apply vacuum or Positive Pressure. The packed-bed filter/frit assembly acts as a depth filter for the concurrent physical removal of precipitated proteins and chemical removal phospholipids. Small molecules (e.g., pharmaceutical compounds and metabolites) pass through unretained.