OROCHEM
Molecular Purification by Design

Purity

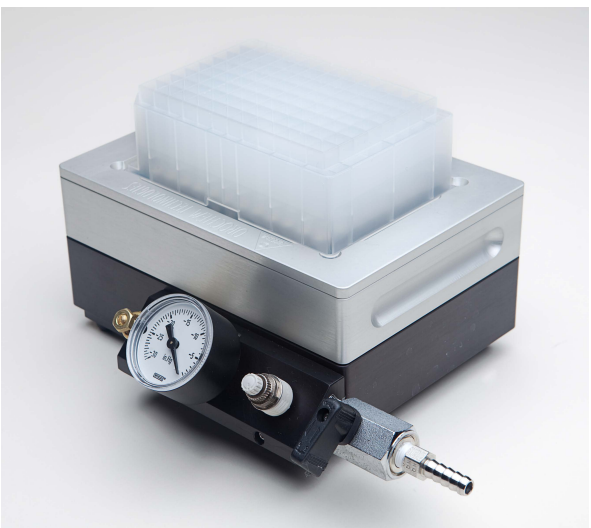
Phospholipid Depletion Products

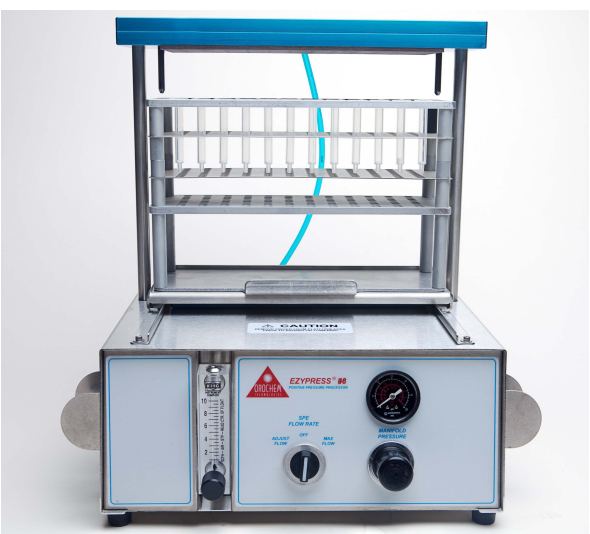
Purity is the unique Phospholipid depletion device which individually integrates screen filtration with the targeted removal of phospholipids and proteins in plasma/serum. The technology utilizes Acidic particles which exhibit selective affinity towards phospholipids while remaining non-selective towards 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 400 µL of 1% formic acid in methanol (or methanol-acetonitrile mixture) to the Phospholipid removal plate(or spin column, cartridge) followed by 100µL plasma or serum.

2. Apply positive pressure or vacuum- The packedbed 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. For acidic compounds, we recommend 5mM to 10mM ammonium formate buffers at pH 9 in methanol. The solvent to plasma ratio is at least 4:1. Load the solvent first to the plate or cartridge, then add plasma.

2. Apply vacuum or positive pressure. The packedbed 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.

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