Empore™
Filter Plate
(Standard and Deep Well Plates)

The Empore™ Filter Plate consists of a proprietary graded density polypropylene depth filter. This plate provides an excellent media for trapping visible particulates from samples in the 96-well plate format, while maintaining excellent flow characteristics. The enclosed instructions are general guidelines for use with Vacuum Manifolds (part #610). Sample volumes, solvent type and condition may be varied for specific applications.

Note: Empore Sample Preparation Products are intended for solid phase extraction during scientific research only. These products are not intended for use in medical devices or in assessment and treatment of clinical patients.

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Section 1: Sample Preparation Method

- Place one volume of plasma or serum into each well of a 96-well collection plate.
  Add 3 to 4 volumes of acetonitrile or methanol to precipitate the proteins.
- Tightly cover the plate and vortex to mix.
- Place an empty 96-well 1 mL collection plate in to Empore™ Manifold System.
- Adjust the height of the collection plate to the Empore filter plate with the provided shim so that the tips of the collars nest just inside the collection plate.
- Transfer the precipitated samples into the corresponding wells of the Empore filter plate. Apply vacuum using a vacuum setting > 5 in Hg (0.17 bar).

Note: Centrifugation may also be used to draw liquids through the filter plate.
Section 2: Empore™ Manifold System Set-up
Part #610

Empore Plate
Gasket
Manifold Collar
Collection Plate
Shims
Manifold base
Manifold Assembly Considerations

- Check collection plate compatibility to assure the Empore™ plate nozzle/collar will fit inside collection well.
- Use the shims enclosed with the Empore Manifold System to adjust the collection plate height to ensure a good seal. The nozzles of the Empore plate should just fit into the top of the well of the collection plate. The vacuum will compress the neoprene gasket and further lower the nozzle into the collection plate.
- Seal empty wells with Sealing Tape Pads (Part #660) prior to applying vacuum to maintain uniform vacuum and to help prevent contamination of unused wells.
Section 3: Sample Collection Consideration

Certain brands of 96-well collection plates will accommodate the tip collars of the Empore™ Filter Plate. As the vacuum is engaged the plate will lower slightly which creates a secure seal around the plate edges by compressing the soft gasket of the Empore Vacuum Manifold. The Empore plate manifold collars will seat into the collection devices, helping further prevent the possibility of cross-contamination.

Empore Sealing Tape Pads (part #660) can be used to cover unused wells during vacuum filtration. Use a clean sheet each time for best sealing.

Note: These sheets are not recommended for sealing collection plates prior to sample injection because the adhesive may interfere with analysis.
Section 4: Typical Product Characteristics

Filtration Specifications* 98% Removal of particles ≥ 10 µm

Well volume: 1.2 mL for standard well plates
2.5 mL for deep well plates

Filter diameter 5.5 mm

Composition: Polypropylene

*Based on data generated in an internal laboratory using standardized particles.
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