Filtering proteins which membrane to use – FAQ

Filters should not remove proteins or any other dissolved compounds from a solution. Proper filters have one purpose and that is to remove un-dissolved particles no matter what they are.

Some filters, depending on the membrane type and specifications, will adsorb compounds such as proteins to the membrane but if the solutions is analyte abundant, this will overwhelm the adsorptive capabilities of the membrane and these compounds will come through with the filtrate. This is called bringing the filter to a “steady state” and may not be recommended for a quantitative study. This is when all of the adsorptive “sites” on the membrane at taken and therefore, no more adsorption will occur.

If you want to remove a dissolved compound from a solution, you should use solid phase extraction SPE, centrifugation or a separation technique like flash chromatography. There are membranes available that are impregnated with chromatographic materials. These membranes will appear to be operating like a filter but are actually adsorbing and desorbing. One such material is the 3M solid phase extraction device called Empore™.

It would be wrong to assume that once you tried one nylon filter for example, all nylon filter brands will perform the same way. That might prevent you from finding a brand / membrane that works well for you.

Learn more about our filtration products

MicroSolv Technology Corporation
9158 Industrial Blvd. NE, Leland, NC 28451
tel. (732) 380-8900, fax (910) 769-9435
Email: customers@mtc-usa.com
Website: www.mtc-usa.com