PALL Life Sciences

# AcroPrep™ Advance Filter Plates


## Advancing sample preparation

- **Various filter choices** – Specialized membranes and media accomodates most applications to guarantee success.
- **Optimized outlet tips** – Minimizes sample leakage during incubation steps and reduces the presence of hanging drops following filtration.
- **Smooth well design** – Provides consistency in filtration times, as well as efficient sample and bead recovery.
- **New well geometry** – Results in faster, more uniform filtration rates across the plate, thereby improving well-to-well, plate-to-plate, and lot-to-lot consistency.
- **Automation compatible** – Manufactured in accordance with SBS guidelines, allowing plates to be run in manual, semi-automated, and automated processes.

### Applications

- Multiplexing assays
- Lysate clearance
- DNA purification
- Protein purification
- Concentration and desalting
- Solvent filtration
- Neonatal screening
- Bead-based assays
- Flow cytometry
- Particulate removal
- Size exclusion

*Filtration. Separation. Solution.*SM

# AcroPrep Advance 96-Well Filter Plates

*Selection Guide*

| Field | Application | Membrane | Part Number | Page |
|---|---|---|---|---|
| Diagnostics | Multiplex Assays | Supor® | 8019, 8029, 8049 | 3 |
| Diagnostics | Flow Cytometry Sample Prep | PP/PE Mesh | 8027 | 3 |
| Nucleic Acids | Lysate Clarification | Glass Fiber/Supor | 8075, 8040, 8175, 8275 | 5 |
| Nucleic Acids | Plasmid Prep | DNA Binding | 8032, 8132 | 6 |
| Nucleic Acids | DNA Purification | DNA Binding | 8032, 8132 | 6 |
| Nucleic Acids | PCR Clean-up | Omega™ Ultrafiltration | 8034, 8035 | 7 |
| Nucleic Acids | Labeling Clean-up, DNA/RNA | Omega Ultrafiltration | 8033, 8034, 8035, 8036, 8163, 8164, 8165, 8166 | 7 |
| Proteins | Lysate Clarification | Glass Fiber/Supor | 8075, 8040, 8175, 8275 | 5 |
| Proteins | Chromatography Screening | Supor, GHP | 8029, 8039, 8129, 8130, 8082, 8084, 8182, 8184, 8282, 8284 | 4, 8 |
| Proteins | Size Exclusion | Omega Ultrafiltration | 8033, 8034, 8035, 8036, 8163, 8164, 8165, 8166 | 7 |
| Proteins | Protein Precipitation | PTFE, GHP | 8047, 8147, 8247, 8082, 8084, 8182, 8184, 8282, 8284 | 8 |
| Proteins | Sample Fractionation | Mustang® Q, Mustang S | 8071, 8022, 8072, 8171, 8172 | 4 |
| Proteins | Free vs. Bound Assays | Omega Ultrafiltration | 8033, 8034, 8035, 8036 | 7 |
| General Filtration | Aqueous Filtration | Supor, GHP | 8082, 8084, 8182, 8184, 8282, 8284, 8019, 8029, 8039, 8119, 8129, 8130 | 8, 10 |
| General Filtration | Particulate Removal | Glass Fiber | 8031, 8131, 8231 | 10 |
| General Filtration | Cell Separation | PP/PE Mesh | 8027 | 3 |
| General Filtration | Solvent Filtration | PTFE, GHP | 8047, 8048, 8147, 8148, 8247, 8248, 8082, 8084, 8182, 8184, 8282, 8284 | 8 |

## Specifications

**Materials of Construction**

Filter Media:
- Supor (polyethersulfone) membrane
- Glass fiber (borosilicate glass without binder) media
- DNA binding (borosilicate glass without binder) media
- Mustang Q (anion exchange) membrane
- Mustang S (cation exhange) membrane
- Omega (modified polyethersulfone) media
- PP/PE non-woven (polypropylene/polyethylene) media
- PTFE (polytetrafluoroethylene) membrane

Plate Housing: Polyproylene

Lid: Polystyrene

**Dimensions**

Length: 12.8 cm (5.0 in.)

Width: 8.6 cm (3.4 in.)

Height (With Lid): 1.8 cm (0.7 in.) (350 µL only)

Height (Without Lid):
- 350 µL: 1.4 cm (0.6 in.)
- 1 mL: 3.3 cm (1.3 in.)
- 2 mL: 4.7 cm (1.9 in.)

**Well-Bottom Area**

0.25 $cm^2$

**Recommended Working Volume**

350 µL: ≤ 300 µL

1 mL: ≤ 900 µL

2 mL: ≤ 1.9 mL

**Recommended Operating Vacuum**

≥ 25.4 cm Hg (10 in. Hg)

**Recommended Centrifugal Force**

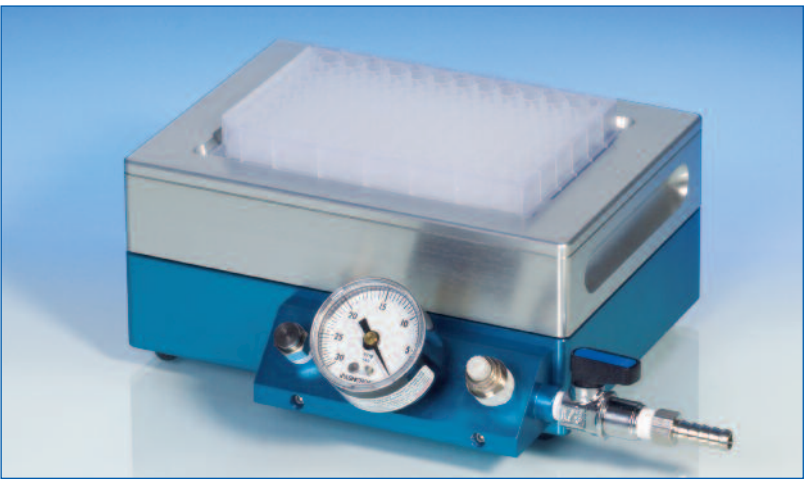
1,500 x g

**Typical Hold-Up Volume**

Filter plates were filled with 300 µL of water and filtered at 10 in. Hg, except plates containing PTFE membrane, which were filled with 60% isopropyl alcohol/40% water.

# Multiplexing

*Superior bead recovery and low levels of false positives ensure assay reproducibility*



## Features

- Smooth well wall provides efficient bead recovery, ensuring reproducible results lot after lot.
- High performance membrane does not trap microspheres in the membrane matrix.
- In serological assays, Supor membrane effectively removes IgG complexes, thus reducing non-specific reactivity of the microspheres and reducing false positives.
- New well design results in faster, more uniform filtration rates across the plate with reduced hold-up volume.
- New outlet tip geometry minimizes sample leakage and loss during incubation steps so that acquisition times are not affected.
- Intrinsic plate and membrane properties minimize target loss from non-specific binding.

## Applications

- Bead-based multiplexing assays
- Flow cytometry

## Specifications

**Materials of Construction**

Filter Media: PP/PE non-woven (polypropylene/polyethylene) and Supor (polyethersulfone) membrane

**Typical Processing Time**

Vacuum: 2 seconds (8049, 8029); 9 seconds (8019); 1 second (8027)
Centrifuge: < 2 minutes (8049, 8029)

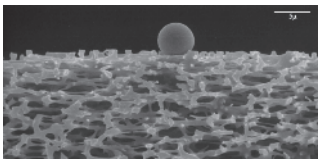
**Typical Hold-up Volume**

Vacuum: 5 µL (8049, 8029); 8 µL (8019); 4 µL (8027)
Centrifuge: 3 µL (8049, 8029)

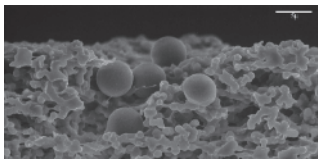
## Performance

**Supor Membrane Does Not Trap Microspheres and Allows Efficient Bead Recovery**

*A: Pall Supor membrane*

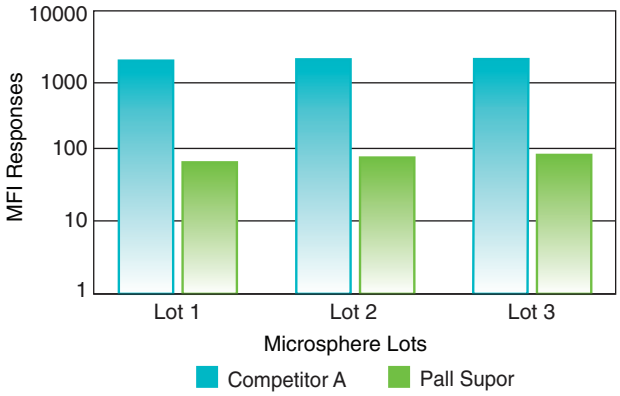


*B: Competitor A membrane*



*The consistent membrane structure and smooth surface morphology of Pall's Supor membrane provides efficient recovery of microspheres. The fibrous surface structure of Competitor A's membrane entraps microspheres, making bead recovery difficult. Luminex◆ xMAP◆ microspheres were coated with a BSA solution and then diluted in PBS with 0.1% BSA to 50,000 beads per mL. Images taken following filtration.*

**Pall Supor Membrane Reduces the Occurrence of False Positive Results**




*The serological immunoassays were performed with multiple lots of xMAP microspheres in both the Pall Supor and Competitor A filter plates. The results from these filter plates were read with one Luminex LX100 Instrument. The responses represent the reactivity toward microspheres without proteins coupled to them to maximize the indications of false positive "non-specific" reactivity by the microspheres. In all lots of microspheres tested, the Pall Supor filter plates exhibited a marked reduction in non-specific reactivity than competitive plates. Data generated in conjunction with Luminex Software, Inc.*

## Ordering Information

**AcroPrep Advance 96-Well Filter Plates for Multiplexing**

| Part Number | Description | Pkg |
|---|---|---|
| 8049 | For multiplex assays | 10/pkg |
| 8019 | 350 µL, 0.2 µm Supor membrane | 10/pkg |
| 8029 | 350 µL, 0.45 µm Supor membrane | 10/pkg |
| 8027 | 350 µL, 30-40 µm PP/PE non-woven media | 10/pkg |

# Protein Purification

*Versatile format for multiple purification strategies*


## Features

- High performance Supor membrane offers optimal support to retain chromatography sorbents while allowing smooth flow of buffers.
- Ion exchange Mustang membrane is able to withstand high flow rates to render fast purification of biomolecules.
- New well design results in faster, more uniform filtration rates across the plate with reduced hold-up volume.
- New outlet tip design minimizes sample leakage and loss during incubation steps.
- Intrinsic plate properties prevent target molecules from binding to the plate.

## Applications

- High throughput protein purification
- Screening of chromatography resins and conditions
- Protein fractionation
- Antibody purification

## Specifications

**Materials of Construction**

Filter Media: Supor (polyethersulfone), Mustang Q (anion exchange), and Mustang S (cation exchange) membranes

**Typical Processing Time**

Vacuum: 2 seconds (8029, 8039, 8129, 8130); 14 seconds (8071, 8072, 8171, 8172)

Centrifuge: < 2 minutes

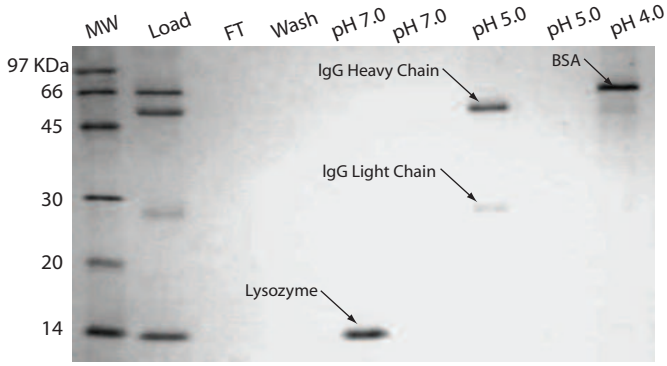
**Typical Hold-Up Volume**

Vacuum: 5 µL (8029, 8039, 8129, 8130); 21 µL (8071, 8072, 8171, 8172)

Centrifuge: 3 µL (8029, 8039, 8129, 8130); 12 µL (8071, 8072, 8171, 8172)

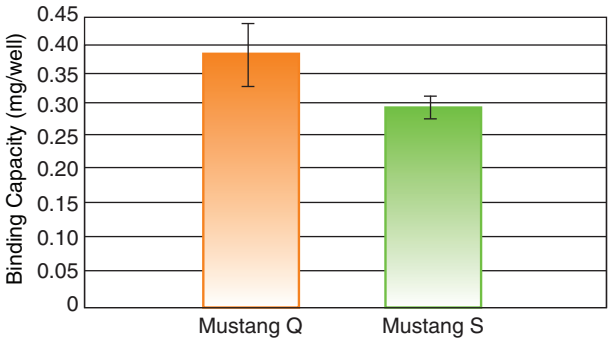
## Performance

**Separation of Multiple Proteins Using AcroPrep Advance Filter Plates**




*Separation of Lysozyme, Human IgG and Bovine Serum Albumin (BSA) on HEA HyperCel™ sorbent loaded in an AcroPrep Advance filter plate with 1.2 µm Supor membrane. 2-6 mg of total reduced protein loaded onto 12% SDS-PAGE run with glycine buffer. Lanes: MW = molecular weight markers; Load = protein mixture; FT = flow through; pH 7.0, 5.0 and 4.0 = elution buffer pH fraction with two elutions per pH. Coomassie◆ stain used.*

**Mustang Q and S Membrane Provide a High Protein Binding Capacity**




*Binding capacity of Mustang Q membrane, 0.38 mg/well (n=5), was determined with BSA in 50 mM Tris, pH 8.5. Mustang S membrane binding capacity, 0.29 mg/well (n=6), was determined using Lysozyme in 10 mM MES, pH 5.5.*

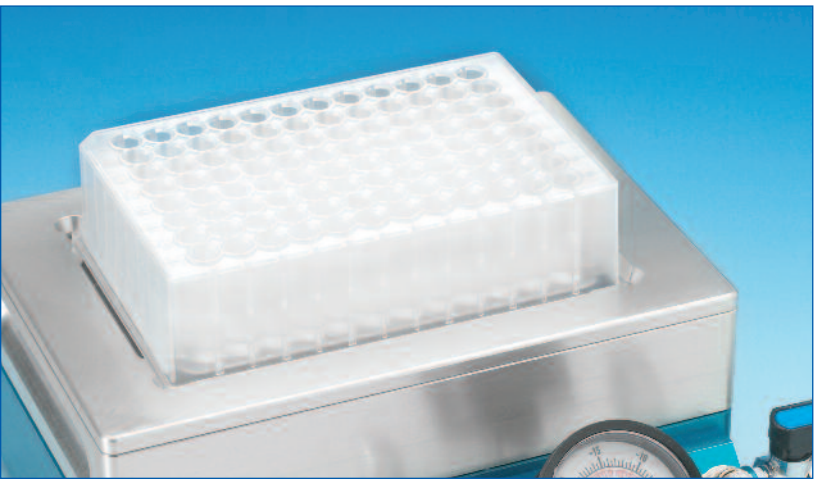
## Ordering Information

**AcroPrep Advance 96-Well Filter Plates for Protein Purification**

| Part Number | Description | Pkg |
|---|---|---|
| 8029 | 350 µL, 0.45 µm Supor membrane | 10/pkg |
| 8039 | 350 µL, 1.2 µm Supor membrane | 10/pkg |
| 8071 | 350 µL, Mustang Q membrane | 10/pkg |
| 8022 | 350 µL, Mustang Q membrane, white | 10/pkg |
| 8072 | 350 µL, Mustang S membrane | 10/pkg |
| 8129 | 1 mL, 0.45 µm Supor membrane | 5/pkg |
| 8130 | 1 mL, 1.2 µm Supor membrane | 5/pkg |
| 8171 | 1 mL, Mustang Q membrane | 5/pkg |
| 8172 | 1 mL, Mustang S membrane | 5/pkg |

# Lysate Clearance

*Integrated prefilter provides efficient clarification of highly particulated samples*



## Features

- Integrated prefilter yields consistent filtration of samples with high levels of gross particulate.
- New outlet tip geometry provides direct flow of samples into receiver plate without concerns of cross-contamination.
- Biologically inert materials allow clarification of most types of lysates without loss of target molecules.

## Applications

- Removal of bacterial debris prior to plasmid purification
- Removal of bacterial and cellular debris prior to protein purification
- Clearance of gross particulates

## Specifications

**Materials of Construction**

Filter Media: 3 µm glass fiber/0.2 µm Supor and 3 µm glass fiber/1.2 µm Supor membranes

**Typical Processing Time**

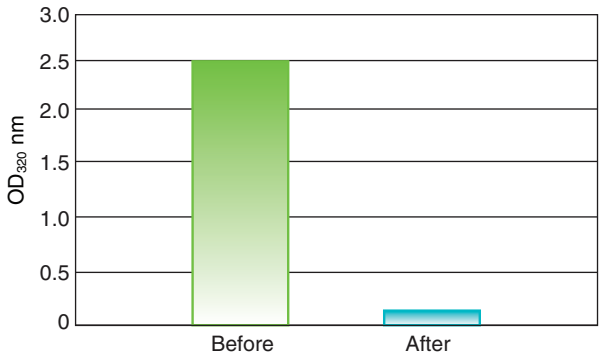
Vacuum: 2 seconds (8040); 9 seconds (8075, 8175, 8275)
Centrifuge: < 2 minutes

**Typical Hold-Up Volume**

Vacuum: 17 µL (8040); 13 µL (8075, 8175, 8275)

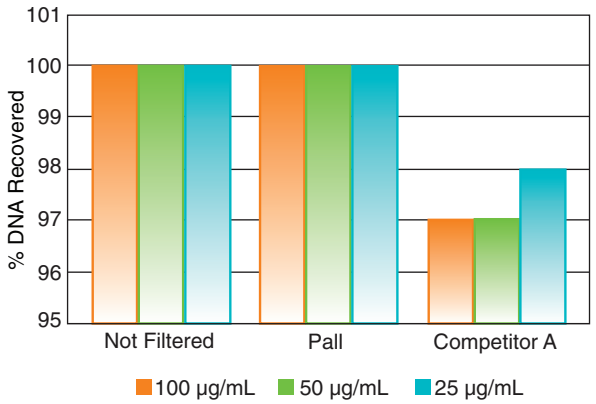
## Performance

**Efficient Clarification of Bacterial Lysates**




*$OD_{320}$ was measured for crude bacterial lysate before and after filtration through Pall's 3 µm glass fiber/0.2 µm Supor membrane filter plates to demonstrate removal of particulate matter. 16 replicates were measured using 800 µL/well of crude bacterial lysate aliquotted from a common stock of prepared lysate.*

**Glass Fiber and Supor Membrane Allow Complete Recovery of Plasmid DNA from *E. coli* Lysates**




*Purified pCAT plasmid DNA was spiked in TE buffer at 25 µg/mL, 50 µg/mL and 100 µg/mL and filtered through Pall and Competitor A's prefilter plates. Percent recovery was calculated by comparing $OD_{260}$ post-filtration to a standard curve of unfiltered samples.*

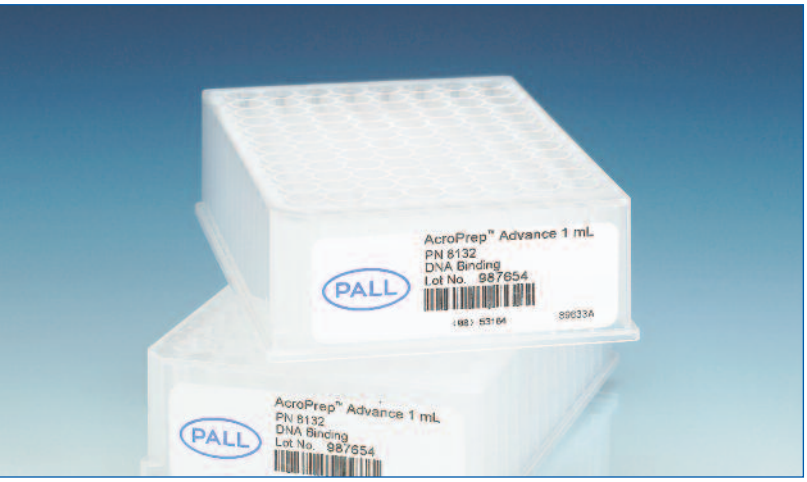
## Ordering Information

**AcroPrep Advance 96-Well Filter Plates for Lysate Clearance**

| Part Number | Description | Pkg |
|---|---|---|
| 8075 | 350 µL, 3 µm glass fiber/0.2 µm Supor membrane | 10/pkg |
| 8040 | 350 µL, 3 µm glass fiber/1.2 µm Supor membrane | 10/pkg |
| 8175 | 1 mL, 3 µm glass fiber/0.2 µm Supor membrane | 5/pkg |
| 8275 | 2 mL, 3 µm glass fiber/0.2 µm Supor membrane | 5/pkg |

# DNA Purification

*Maximum yields of high quality nucleic acid*




## Features

- Optimized for maximum binding and yield of DNA from a variety of sample types.
- New well geometry results in reduced hold-up volume and higher recovery of DNA.
- Enhanced media ensures high yields of contaminant-free DNA for downstream applications, such as PCR and sequencing.
- Manufactured in accordance with SBS guidelines allowing entire DNA purification process to be performed on automated equipment.

## Applications

- Plasmid DNA purification
- Genomic DNA purification
- Plant RNA purification

## Specifications

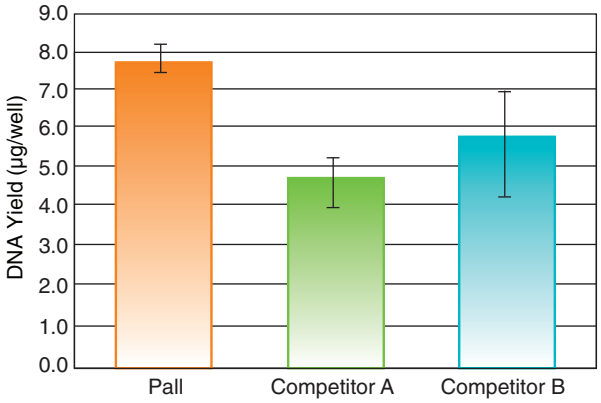
**Materials of Construction**
Filter Media: DNA binding (borosilicate glass without binder) media

**Typical Processing Time**
Vacuum: 2 seconds
Centrifuge: < 2 minutes

**Typical Hold-Up Volume**
Vacuum: 19 µL

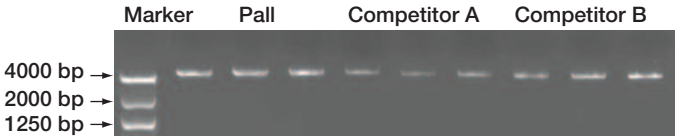
## Performance

**Plasmid DNA Yield Superior to Competitive Plates**




*pCAT plasmid DNA yield ($OD_{260}$) using indicated DNA purification plates starting with 1 mL (Pall and Competitor B) or 1.5 mL (Competitor A) overnight culture DH5α. Purification using plate manufacturer's recommended protocol using 350 µL plates. Error bars indicate standard error (n ≥ 6).*

**Quality DNA Prepared from *E. coli* Lysates**




*1.2% agarose gel electrophoresis of the purified pDNA. Pooled samples from three separate purifications, eluate adjusted to 65 µL after purification, diluted 1:10. Loaded 2 µL per lane.*

**Quality DNA Consistently Purified**

| Company | Elution Volume (µL) | Recovered Volume (µL) | $OD_{260/280}$ | Concentration (ng/µL) | Total Yield (µg/well) |
|---|---|---|---|---|---|
| Pall | 70 | 55-65 | 1.95 ± 0.01 | 131 | 7.7 |
| Competitor A | 50 | 30 | 1.98 ± 0.01 | 155 | 4.6 |
| Competitor B | 70 | 45-60 | 2.04 ± 0.05 | 108 | 5.6 |

*$OD_{260/280}$ of pooled purified pDNA (n ≥ 6). High quality DNA has an $OD_{260/280}$ value between 1.7-2.0.*

## Ordering Information

**AcroPrep Advance 96-Well Filter Plates for DNA Purification**

| Part Number | Description | Pkg |
|---|---|---|
| 8032 | 350 µL, DNA binding | 10/pkg |
| 8132 | 1 mL, DNA binding | 5/pkg |

# Ultrafiltration

*Rapid, efficient separation of biomolecules*

## Features

- Omega membrane provides high recovery and typically results in ≥ 90% recovery of target biomolecules.
- New well design results in faster, more uniform filtration rates across the plate with reduced hold-up volume for maximum sample recovery.
- Intrinsic plate and membrane properties prevent target molecules from binding to the plate.

## Applications

- Size exclusion
- PCR clean-up
- Nucleic acid purification
- Protein separation

## Specifications

**Materials of Construction**

Filter Media: Omega (modified polyethersulfone) membrane

**Typical Vacuum Filtration Performance**

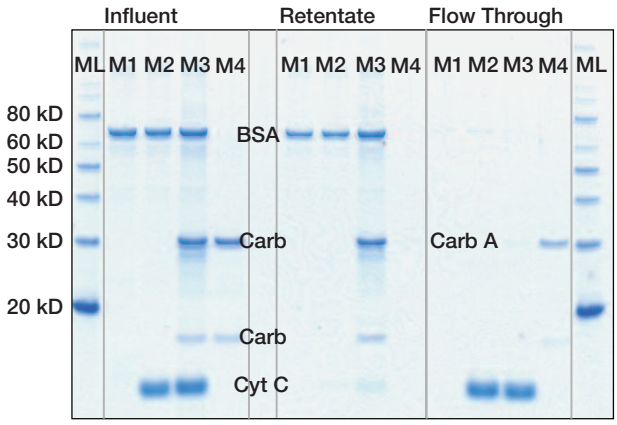
| Membrane | Processing Time (min.) | Hold-Up Volume (µL) |
|---|---|---|
| 10K Omega | 20 | 5 |
| 30K Omega | 8 | 6 |
| 100K Omega | 4 | 7 |

**Typical Centrifugal Filtration Performance**

| Membrane | Processing Time (min.) | Hold-Up Volume (µL) |
|---|---|---|
| 3K Omega | 45 | 2 |
| 10K Omega | 8 | 2 |
| 30K Omega | 8 | 2 |
| 100K Omega | 5 | 2 |

## Performance

**Separation of Proteins with Omega Membrane Using Vacuum Filtration**




*SDS-PAGE analysis of reduced samples from 30K Omega membrane plate using vacuum separation method, 5 µL/lane. 75 µL protein mix/well subjected to ~20 in. Hg vacuum for ~8 minutes. Each protein at 100 µg/mL in initial mix. ML = Marker Ladder; M1 = BSA; M2 = BSA + Cyt C; M3 = BSA, Carbonic Anydrase, and Cyto C; M4 = Carbonic Anhydrase. GelCode◆ Blue stain used.*

## Ordering Information

**AcroPrep Advance 96-Well Filter Plates for Ultrafiltration**

| Part Number | Description | Pkg |
|---|---|---|
| 8033 | 350 µL, Omega 3K MWCO | 10/pkg |
| 8034 | 350 µL, Omega 10K MWCO | 10/pkg |
| 8035 | 350 µL, Omega 30K MWCO | 10/pkg |
| 8036 | 350 µL, Omega 100K MWCO | 10/pkg |
| 8163 | 1 mL, Omega 3K MWCO | 5/pkg |
| 8164 | 1 mL, Omega 10K MWCO | 5/pkg |
| 8165 | 1 mL, Omega 30K MWCO | 5/pkg |
| 8166 | 1 mL, Omega 100K MWCO | 5/pkg |

# Solvent Filtration

*Versatile chemical compatibility with harsh organic and/or aqueous solvents*


## Features

- Chemically resistant materials provide a stable platform to process samples in organic solvents.
- Inert materials of construction ensure complete recovery of samples and low non-specific binding.
- New well design results in faster, more uniform filtration rates across the plate and reduces hold-up volume.
- New outlet tip geometry provides direct flow of samples into receiver plate without concerns of cross-contamination.

## Applications

- Metabolic studies
- Molecular or drug synthesis reactions
- Sample prep using solvents
- Aggressive filtration applications

## Specifications

**Materials of Construction**

Filter Media: PTFE (polytetrafluoroethylene) and GHP (hydrophilic polypropylene) membranes

**Typical Vacuum Filtration Performance for 350 µL Filter Plates**

| Membrane | Processing Time (sec.) | Hold-Up Volume (µL) |
|---|---|---|
| 0.2 µm GHP | 9 | 12 |
| 0.45 µm GHP | 6 | 12 |
| 0.2 µm PTFE | 52 | 14 |
| 0.45 µm PTFE | 19 | 15 |

**Typical Centrifugal Filtration Performance for 350 µL Filter Plates**

| Membrane | Processing Time (min.) | Hold-Up Volume (µL) |
|---|---|---|
| 0.2 µm GHP | < 2 | 3 |
| 0.45 µm GHP | < 2 | 3 |
| 0.2 µm PTFE | < 2 | 2 |
| 0.45 µm PTFE | < 2 | 1 |

## Performance

**Plates Maintain Solvents for Extended Incubations**

| | AcroPrep Advance 0.2 and 0.45 µm PTFE Membrane Filter Plates | | |
|---|---|---|---|
| Solution | 30 min. | 2 hrs. | 24 hrs. (in humid chamber) |
| Ethanol, 100% | R | R | R |
| Methanol,100% | R | R | R |
| ACN, 100% | R | R | R |
| DMSO, 100% | R | R | R |
| Hexane, 100% | R | R | E |

*This solvent retention table shows results reported for 200 µL of liquid with 30 min., 2 hr. and 24 hr. incubations at room temperature in a humid chamber. R = fully retained, E = fully retained, completely evaporated before 24 hr. mark, n = 24 (repeated 3 times).*

| | AcroPrep Advance 0.2 and 0.45 µm GHP Membrane Filter Plates | | |
|---|---|---|---|
| Solution | 30 min. | 2 hrs. | 24 hrs. (without humid chamber) |
| Ethanol, 100% | R | R | E |
| Methanol,100% | R | R | E |
| ACN, 100% | R | R | E |
| DMSO, 100% | R | R | R |
| Hexane, 100% | R | E | E |

*This solvent retention table shows results reported for 200 µL/well (350 µL plates) and 300 µL/well (1 mL plates) of liquid with 30 min., 2 hr. and 24 hr. incubations at room temperature without a humid chamber. R = fully retained, E = completely evaporated before 24 hr. mark, n = 24 wells/solution.*

**Note:** To help prevent evaporation during long incubation periods, the use of a humid chamber is recommended.

## Ordering Information

**AcroPrep Advance 96-Well Filter Plates for Solvent Filtration**

| Part Number | Description | Pkg |
|---|---|---|
| 8082 | 350 µL, 0.2 µm GHP membrane | 10/pkg |
| 8084 | 350 µL, 0.45 µm GHP membrane | 10/pkg |
| 8182 | 1 mL, 0.2 µm GHP membrane | 5/pkg |
| 8184 | 1 mL, 0.45 µm GHP membrane | 5/pkg |
| 8282 | 2 mL, 0.2 µm GHP membrane | 5/pkg |
| 8284 | 2 mL, 0.45 µm GHP membrane | 5/pkg |
| 8047 | 350 µL, 0.2 µm PTFE membrane | 10/pkg |
| 8048 | 350 µL, 0.45 µm PTFE membrane | 10/pkg |
| 8147 | 1 mL, 0.2 µm PTFE membrane | 5/pkg |
| 8148 | 1 mL, 0.45 µm PTFE membrane | 5/pkg |
| 8247 | 2 mL, 0.2 µm PTFE membrane | 5/pkg |
| 8248 | 2 mL, 0.45 µm PTFE membrane | 5/pkg |

# Aqueous Filtration

*Fast processing with efficient removal of particulates*


## Features

- New well geometry results in faster, more uniform filtration rates across the plate with reduced hold-up volume.
- Optimized outlet tip provides direct flow of samples into receiver plate without concerns of cross-contamination.
- Varied membrane and pore size selection offers efficient particulate removal.
- Manufactured in accordance with SBS guidelines, allowing plates to be run in manual, semi-automated, and automated processes.
- Smooth top surface and textured window allow for easy labeling on the plates.

## Applications

- General sample prep
- Gross fractionation
- Cell harvesting
- Cell-based assays

## Specifications

**Materials of Construction**

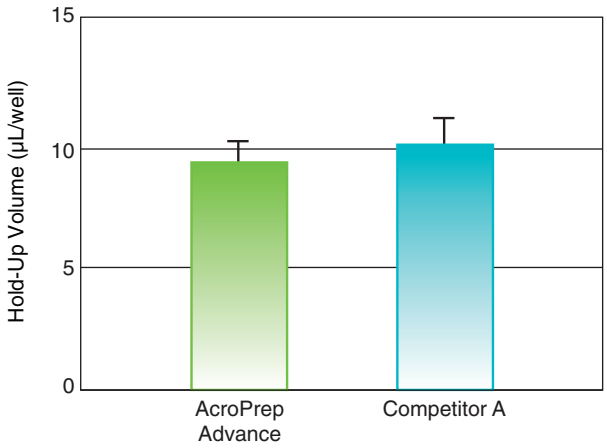
Filter Media: Supor (polyethersulfone), glass fiber (borosilicate glass without binder), and PP/PE non-woven (polypropylene/polyethylene) media

**Typical Vacuum Filtration Performance**

| Membrane | Processing Time (sec.) | Hold-Up Volume (µL) |
|---|---|---|
| 0.2 µm Supor | 9 | 8 |
| 0.45 µm Supor | 5 | 6 |
| 1.2 µm Supor | 2 | 5 |
| 1.0 µm glass fiber | 2 | 19 |
| 30-40 µm PP/PE | 1 | 4 |

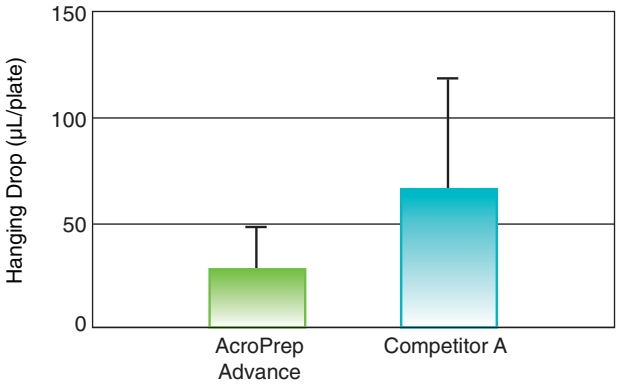
## Performance

**Lower Hold-Up Volume Improves Sample Recovery**




*Multiple plates of each type were evaluated for hold-up volume using a solution of Vitamin B12. After all wells were evacuated, wash fraction was collected into a solid bottom plate and read at $OD_{550}$ for concentration of Vitamin B12. All testing was completed in a 350 µL plate and used 96 wells/plate.*

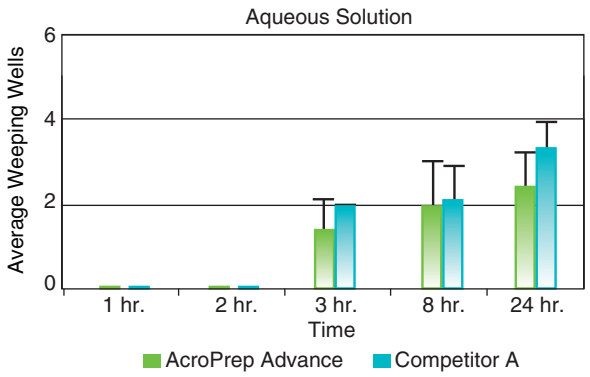
**Reduction of Hanging Drops Reduces Potential Cross-Contamination**

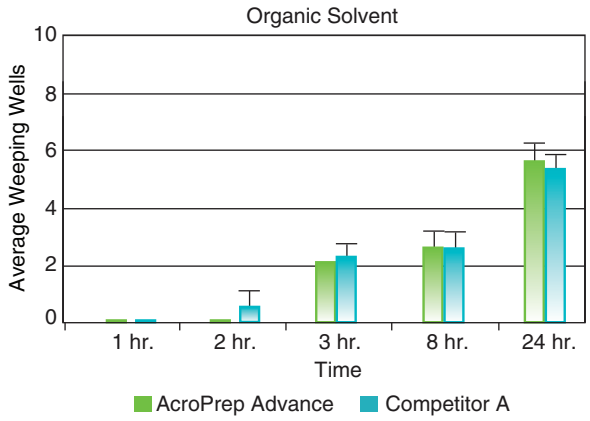


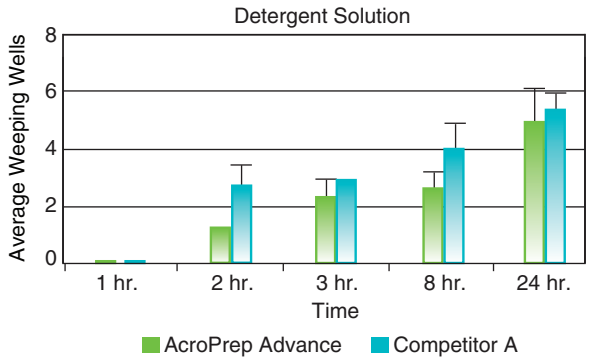

*Hanging drops were measured by evacuating wells of fluid, weighing the plate, and then blotting and re-weighing the plate. Three plates of each type (350 µL well volume) were tested and the averages calculated.*

## *Performance* *(continued)*

### Reduced Weeping Minimizes Sample Loss and Provides Extended Incubations




*350 µL filter plates were filled with 200 µL of the indicated solutions and incubated over receiver plates for 24 hours. Receiver plates were checked for the presence of fluid at 1, 2, 3, 8, and 24 hour intervals. Three plates of each variety were evaluated and the averages calculated. Aqueous solution consisted of PBS, 0.8% BSA, 0.4% Vitamin B12. Organic solution consisted of PBS, 0.8% BSA, 0.4% Vitamin B12, and 20% Ethanol. Detergent solution consisted of PBS, 0.8% BSA, 0.4% Vitamin B12, and 0.5% NP40. Vitamin B12 was used as a coloring agent to identify weeping wells.*

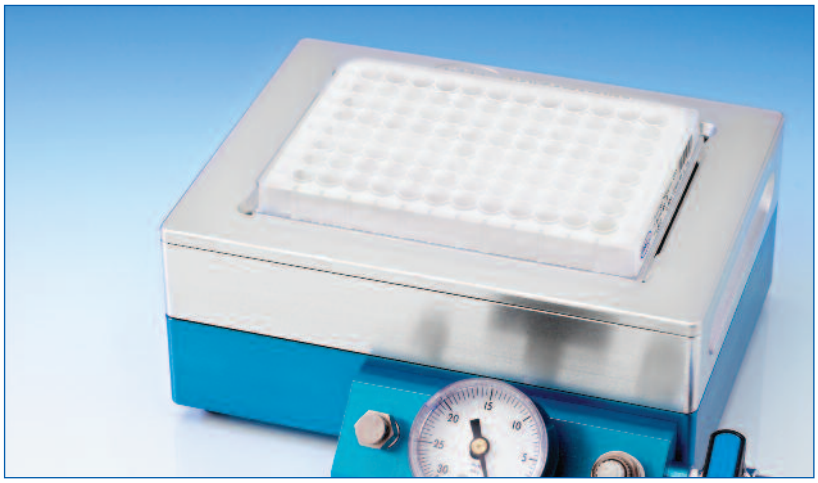
## *Ordering Information*

### AcroPrep Advance 96-Well Filter Plates for Aqueous Filtration

| Part Number | Description | Pkg |
|---|---|---|
| 8019 | 350 µL, 0.2 µm Supor membrane | 10/pkg |
| 8029 | 350 µL, 0.45 µm Supor membrane | 10/pkg |
| 8039 | 350 µL, 1.2 µm Supor membrane | 10/pkg |
| 8027 | 350 µL, 30-40 µm PP/PE non-woven media | 10/pkg |
| 8031 | 350 µL, 1 µm glass fiber | 10/pkg |
| 8119 | 1 mL, 0.2 µm Supor membrane | 5/pkg |
| 8129 | 1 mL, 0.45 µm Supor membrane | 5/pkg |
| 8130 | 1 mL, 1.2 µm Supor membrane | 5/pkg |
| 8131 | 1 mL, 1 µm glass fiber | 5/pkg |
| 8127 | 1 mL, 30-40 µm PP/PE non-woven media | 5/pkg |
| 8231 | 2 mL, 1 µm glass fiber | 5/pkg |
| 8227 | 2 mL, 30-40 µm PP/PE non-woven media | 5/pkg |

# Vacuum Manifold and Accessories

*Designed to perfectly fit SBS-conforming filter plates*



## Features

- Comes complete with the necessary O-ring and gasket. The control block includes the vacuum pressure gauge, vacuum metering valve, vacuum release valve, and 1/4 in. hose barb for vacuum line attachment.
- Includes a Delrin◆ spacer block designed for standard 350 µL receiver plates. The spacer block has been optimized to reduce the space between the receiver plate and the filter plate during vacuum filtration.
- Optional spacer block available for use with 1 mL receiver plates.
- Optional waste drain adapter kit available to capture waste in larger vessel.

## Applications

- For vacuum filtration specifically using AcroPrep Advance and AcroPrep multi-well filter plates.

## Specifications

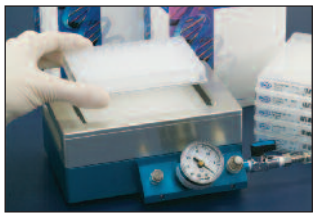
**Materials of Construction**
Vacuum Manifold: Anodized aluminum
Gasket: EDPM (ethylene propylene)
O-Ring: Silicone
Spacer Block: Delrin plastic
Adapter Collar: Stainless steel

**Dimensions**
Length: 17.48 cm (6.88 in.)
Width: 12.37 cm (4.87 in.)
Height: 8.05 cm (3.17 in.)
Weight: 2.85 kg (6.27 lb.)

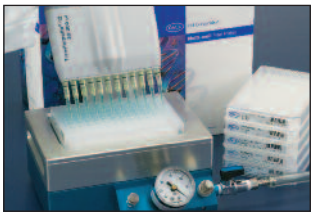
**Maximum Operating Vacuum**
71.12 cm Hg (28 in. Hg)

**Note:** Pall's vacuum manifold can be used with multi-well filter plates that meet the specifications set forth by the ANSI/SBS X-2004.

## Methodology



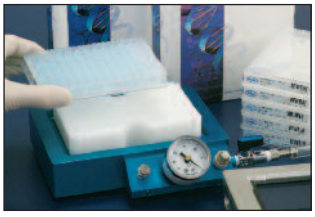
*1. Place plate on vacuum manifold or hold the plate so the outlets on the bottom of the plate are not touched.*



*2. Add sample and incubate. Apply vacuum.*

*3A. Release vacuum from the manifold. Remove filter plate and retained sample for further processing.*

(OR)



*3B. Release vacuum from the manifold. Remove filter plate. Remove collection (receiver) plate and utilize collected filtrate in downstream applications.*

## Ordering Information

**Vacuum Manifold and Accessories**

| Part Number | Description | Pkg |
|---|---|---|
| 5017 | Multi-well plate vacuum manifold | 1/pkg |
| 5014 | 1 mL receiver plate spacer block | 1/pkg |
| 5015 | 350 µL receiver plate spacer block | 1/pkg |
| 5016 | Replacement accessory kit (includes O-ring, gasket and allen wrench) | 1/pkg |
| 5028 | Waste drain adapter | 1/pkg |
| 5225 | Adapter collar for centrifugation | 2/pkg |
| 5230 | Cap mat for incubation | 5/pkg |
| 8001 | AcroPrep Advance multi-well plate lid | 10/pkg |
| 13157 | Vacuum/pressure pump, 115 V, 60 Hz, single phase | 1/pkg |
| 13158 | Vacuum/pressure pump, 230 V, 50/60 Hz, single phase (interchangeable powercords accomodate European 2 round-pin sockets and UK 3 flat-blade sockets) CE | 1/pkg |

## Related Literature

- Application Note: Efficient Multi-well Protein Purification Strategies, PN33576
- Application Note: Streamlined Purification of Plasmid DNA from Prokaryotic Cultures (online)

## Related Products

- **AcroPrep 384-well Filter Plates** for superior performance in high throughput sample preparation applications.
- **Centrifugal Devices** concentrate and purify samples of < 50 µL to 60 mL with efficient recovery and low non-specific binding.
- **Chromatography Sorbents** simplify protein purification and fractionation for biomarker discovery, proteomics research, and drug development.

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