



Sterile Filtration Devices

Vacuum-Driven and Pressure-Driven Devices



The Name You Trust for Sterile Filtration

Eliminating contaminants from your cell growth media and additives is absolutely crucial to preserving the integrity and accuracy of your cell cultures. Millipore's comprehensive line of sterile filtration tools have been specifically designed to address these needs and to serve almost any work flow you require.

SELECTION From 1 mL to 20 liters, we offer an array of both vacuum- and pressure-driven devices that incorporate Millipore brand membrane technology. And every device is specifically engineered and tested for your application needs.

EXPERTISE With over 50 years of expertise in the sterile filtration business, we set the industry standard for high performance membrane technology and application in sterile filtration.

INNOVATION We continue to raise that standard with next-generation application testing in sensitive research areas like stem cell culture and its related media and cultureware.



Get the sterile filtration performance you need every day from Millipore.

Stem Cell Tested

Millipore has initiated a rigorous testing program to ensure that our sterile filtration and cell culture devices can be used for stem cell culture. To learn more visit www.millipore.com/SCTested1.



Bench Scale Vacuum-Driven Devices

Description	Pore Size (µm)	Membrane	Maximum Process Volume	
Stericup® Filter Units 	0.1 0.22 0.45	Millipore Express® PLUS* (PES), Durapore® (PVDF)	150 mL 250 mL 500 mL 1000 mL	
Steritop® Filter Units 	0.22	Millipore Express PLUS (PES), Durapore (PVDF)	150 mL 250 mL 500 mL 1000 mL	
Steriflip® Filter Units	0.22 0.45	Millipore Express PLUS (PES), Durapore (PVDF), Nylon Net	50 mL	

Bench Scale Pressure-Driven Devices

Description	Pore Size (µm)	Membrane	Maximum Process Volume	
Millex® Syringe Filters (4, 13, 25 mm)	0.2 0.22 0.45 0.5	Millipore Express (PES), Durapore (PVDF), Millipore Hydrophilic PTFE, MCE	1 – 100 mL	
Millex Syringe Filters (33 mm)	0.1 0.22 0.45 0.8	Millipore Express PLUS (PES), Durapore (PVDF), MCE	100 – 200 mL	
Sterivex™ Filter Units	0.22 0.45	Millipore Express PLUS (PES), Durapore (PVDF)	Up to 2 Liters	

Lab Scale Vacuum-Driven Devices

Description	Pore Size (µm)	Membrane	Maximum Process Volume	
Stericap™ PLUS Filter Units	0.22	Millipore Express PLUS (PES)	2 – 10 L	

* Stem Cell research publication citing Millipore Stericup device for sterile filtration of medium:
Feeder independent culture of human embryonic stem cells. Teneille E. Ludwig *et al. Nature Methods* Vol. 3 No. 8 August 2006 637-646
Product also featured on page 6.

Lab Scale Pump-Driven Devices

Description	Pore Size (µm)	Membrane	Maximum Process Volume	
Millex-GP ₅₀ Filter Unit (50 mm)	0.22	Millipore Express (PES)	Up to 4 L	
Steripak™ Filter Units	0.22	Millipore Express (PES)	10 L 20 L	

Other Stem Cell Tested Products

Description	Pore Size (µm)	Membrane	
Millicell® Inserts Preloaded in Receiver Plates	0.4 8.0	PET	
Millicell 24-well Cell Culture Plate Assemblies	0.4 1.0 3.0 5.0 8.0	PCF, PET	
 Millicell 96-well Cell Culture Plate Assemblies	0.4 1.0	PCF, PET	

Membrane Technology

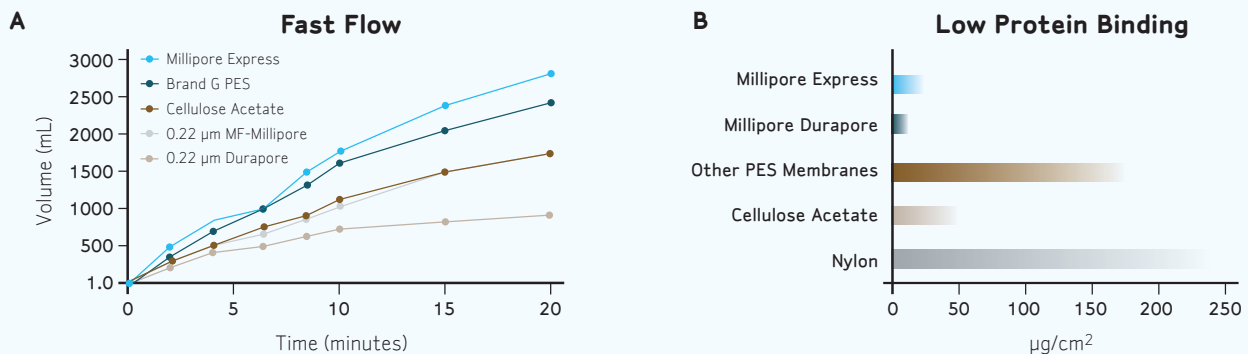


Figure A. 47 mm membrane disks with a 0.22 µm pore size were challenged with DMEM with 10% FBS.

Figure B. Membrane disks with a 0.22 µm pore size were offered a 1 mg/mL solution of ¹²⁵I labeled IgG. The chart shows protein binding after incubation (normalized to membrane surface area).

Millipore Express & Millipore Express PLUS (PES) Fast flow and low protein binding	Mixed Cellulose Esters (MCE) General purpose; binds trace proteins
Durapore (PVDF) Ultra-low protein binding	Millipore LCR Broad chemical compatibility

Stericup & Steritop Filter Units

Stericup and Steritop sterile filtration devices combine superior flow rates and throughput with low non-specific binding and a stable no-tip design.

Fast Flow, Low Binding Membranes

Membranes with low protein binding ensure that key growth factors and proteins won't be absorbed into the filter. Millipore Express PLUS membranes feature low protein binding and faster flow than other membranes. For applications that require ultra-low protein binding, use a device with Durapore PVDF membrane.

Intelligent Design

The Stericup vacuum filtration system can process and store volumes from 150 mL to 1 L. The new, no-tip/easy-grip flask design and compact profile improve stability during filtration and make Stericup filter units ideal for use in laminar flow hoods.

As an added convenience, the bottom of the receiver flask is slightly recessed, enabling capped flasks to be stacked for easy storage.



Applications

- Tissue culture media +/- additives
- Buffers
- Biological solutions



Stericup Filter Units

Stericup filter devices combine a filter unit with a receiver flask and cap for processing and storage.

Description	Membrane/Application	Pore Size (µm)	Funnel Capacity (mL)	Receiver Bottle (mL)	Qty/Pk	Catalogue No.
 Stericup-GP Filter Units	Millipore Express PLUS (PES) / fast filtration of tissue culture media and buffers	0.22*	150	150	12	SCGPU01RE
			250	250	12	SCGPU02RE
			500	500	12	SCGPU05RE
			500	1000	12	SCGPU10RE
			1000	1000	12	SCGPU11RE
Stericup-VP Filter Units	Millipore Express PLUS (PES) / removal of mycoplasma**	0.10	250	250	12	SCVPU02RE
			1000	1000	12	SCVPU11RE
Stericup-GV Filter Units	Durapore (PVDF) / filtration of high value biomolecules, lowest protein binding	0.22	150	150	12	SCGVU01RE
			250	250	12	SCGVU02RE
			500	500	12	SCGVU05RE
			500	1000	12	SCGVU10RE
			1000	1000	12	SCGVU11RE
Stericup-HV Filter Units	Durapore (PVDF) / filtration of high value biomolecules, lowest protein binding	0.45	150	150	12	SCHVU01RE
			250	250	12	SCHVU02RE
			500	500	12	SCHVU05RE
			1000	1000	12	SCHVU11RE

Steritop Filter Units

Steritop bottle-top filter units can be used on bottles with 33 mm or 45 mm openings.

Description	Membrane/Application	Pore Size (µm)	Volume (mL)	Receiver Bottle Thread (mm)	Qty/Pk	Catalogue No.
 Steritop-GP Filter Units	Millipore Express PLUS (PES) / filtration of high value biomolecules, lowest protein binding	0.22	150	33	12	SCGPS01RE
				45	12	SCGPT01RE
			250	33	12	SCGPS02RE
				45	12	SCGPT02RE
			500	33	12	SCGPS05RE
				45	12	SCGPT05RE
			1000	45	12	SCGPT10RE
Steritop-GV Filter Units	Durapore (PVDF) / filtration of high value biomolecules, lowest protein binding	0.22	500	45	12	SCGVT05RE
Receiver Bottles and Caps			250	45	12	SC00B02RE
			500	45	12	SC00B05RE
			1000	45	12	SC00B10RE

* Stem Cell research publication citing Millipore Stericup device for sterile filtration of medium:

Feeder independent culture of human embryonic stem cells. Teneille E. Ludwig *et al. Nature Methods* Vol. 3 No. 8 August 2006 637-646.

** 0.10 µm pore size is designed to enhance maximum filtration of tissue culture media but it is not a guarantee of complete mycoplasma removal.

Steriflip Filter Units

For filtering 10 mL to 50 mL volumes without sample transfer steps.

Filter Up to 50 mL Directly into a Centrifuge Tube

- Attach the device to a standard 50 mL centrifuge tube containing your sample, flip it over, and apply vacuum
- Filtrate collects in the attached 50 mL tube
- Available with optional funnel accessory



Description	Membrane	Pore Size (µm)	Qty/Pk	Catalogue No.
Steriflip-GP Filter Unit	Millipore Express PLUS (PES)	0.22	25	SCGP00525
Steriflip-GV Filter Unit	Durapore (PVDF)	0.22	25	SE1M179M6
Steriflip-HV Filter Unit	Durapore (PVDF)	0.45	25	SE1M003M00
Steriflip Steri-Strainer NEW	Nylon Net	100	25	SCNY00100
		60	25	SCNY00060
		40	25	SCNY00040
		20	25	SCNY00020
Accessory				
Steriflip Funnel Attachment			25	SC50FL025

Millex Syringe Filters

Millex syringe filters provide convenient sterilization of small volumes and are ideal for solutions such as antibiotics and tissue culture additives. Their unsurpassed quality and consistency of results has led to the development of many sample preparation methods that specify Millex filters.

Manufactured for Reliable Performance

Manufacturing occurs in a controlled environment using an automated process. Sterile devices are provided with a certificate of quality.

Faster Flow Rate

33 mm Millex filters have 20% more filter surface than 25 mm filters for significantly higher flow rate and throughput.

Higher Operating Pressure

With a maximum housing pressure of 150 psig (10 bar), solutions can be filtered faster.

Low Extractables, Low Binding

A variety of membranes and housings ensure chemical compatibility with a range of samples and solvents.



BENCH SCALE DEVICES

Millex Syringe Filters

Sterilized and individually packaged.

Description	Pore Size (µm)	Type	Process Volume	Hold-up Volume (after air purge)	Sterilization Method†	Qty/Pk	Catalogue No.
4 mm Diameter							
Durapore (PVDF) Membrane	0.22	GV	1 mL	< 10 µL	EO	100	SLGV004SL
	0.45	HV	1 mL	< 10 µL	EO	100	SLHV004SL
13 mm Diameter							
Hydrophilic PTFE Membrane	0.2	LG	10 mL	< 25 µL	EO	100	SLLG013SL
Durapore (PVDF) Membrane	0.22	GV	10 mL	< 25 µL	EO	100	SLGV013SL
	0.45	HV	10 mL	< 25 µL	EO	100	SLHV013SL
25 mm Diameter							
Durapore (PVDF) Membrane	5.0	SV	100 mL	< 100 µL	EO	50	SLSV025LS
Millipore Express (PES) Membrane	0.22	GP	100 mL	< 100 µL	EO	50	SLMP025SS
Millipore Express (PES) Membrane with male Luer-Lok™ outlet	0.22	GP	100 mL	< 100 µL	EO	50	SLMPL25SS
Mixed Cellulose Esters (MCE) Membrane with male Luer-Lok outlet	0.22	OR	100 mL	< 100 µL	EO	50	SLGL025OS
Mixed Cellulose Esters (MCE) Membrane with vented inlet	0.22	GS	100 mL	< 100 µL	EO	50	SLGSV255F
Mixed Cellulose Esters (MCE)	0.8	AA	100 mL	<100µL	EO	50	SLAAV255F
Hydrophilic PTFE Membrane	0.2	LG	100 mL	< 100 µL	EO	50	SLLG025SS
Glass Filter for Prefiltration	NA	AP	100 mL	<100µL	Autoclavable	50	SLAP02550
33 mm Diameter							
Millipore Express PLUS (PES) Membrane	0.22	GP	200 mL	< 100 µL	RS	50	SLGP033RS
						250	SLGP033RB
						1000	SLGP033RK
	0.45	GP	200 mL	< 100 µL	RS	50	SLHP033RS
						250	SLHP033RB
Durapore (PVDF) Membrane	0.1	VV	100 mL	< 100 µL	RS	50	SLVV033RS
						250	SLGV033RS
						1000	SLGV033RK
	0.22	GV	100 mL	< 100 µL	RS	50	SLGV033RS
						250	SLGV033RB
						1000	SLGV033RK
	0.45	HV	100 mL	< 100 µL	RS	50	SLHV033RS
						250	SLHV033RB
						1000	SLHV033RK
Mixed Cellulose Esters (MCE) Membrane	0.22	GS	100 mL	< 100 µL	EO	50	SLGS033SS
						250	SLGS033SB
	0.45	HA	100 mL	< 100 µL	EO	50	SLHA033SS
						250	SLHA033SB
	0.8	AA	100 mL	< 100 µL	EO	50	SLAA033SS
						250	SLAA033SB
	0.8	AA	100 mL	< 100 µL	EO	50	SLAA033SB

†EO = ethylene oxide; RS = radiosterilized

Millex Pump-Driven Filters

Sterilized and individually packaged.

Description	Pore Size (µm)	Type	Process Volume	Hold-up Volume (after air purge)	Sterilization Method [†]	Qty/Pk	Catalogue No.
50 mm Diameter							
Millipore Express (PES) Membrane	0.22	GP50	4000 mL	< 1 mL	RS	10	SLGP05010
		GP50 with filling bell				10	SLGPB5010
Glass Filter for Prefiltration	NA	AP	4000mL	<1mL	Autoclavable	10	SLAP05010

Sterivex Filter Units

Pressure-Driven Devices for Filtering up to 2 L

Sterivex filter units work with syringes, peristaltic pumps, or pressure vessels.

Sterivex units are designed to dispense into any storage container.



Sterivex-GP Filter Units

Description	Process Volume	Membrane	Pore Size (µm)	Fitting Outlet	Qty/Pk	Catalogue No.
Sterivex-GP Filter Unit	2000 mL	Millipore Express PLUS (PES)	0.22	Filling Bell	10	SVGPB1010
				Male Luer-Lok	15	SVGPL10RC
				Male Nipple	15	SVGP01015
					50	SVGP01050

Sterivex-GV Filter Units

Description	Process Volume	Membrane	Pore Size (µm)	Fitting Outlet	Qty/Pk	Catalogue No.
Sterivex-GV Filter Unit	1000 mL	Durapore (PVDF)	0.22	Filling Bell	10	SVGVB1010
				Male Luer-Lok	15	SVGVL10RC
				Male Nipple	15	SVGVO1015
					50	SVGVO10RS

Sterivex-HV Filter Units

Description	Process Volume	Membrane	Pore Size (µm)	Fitting Outlet	Qty/Pk	Catalogue No.
Sterivex-HV Filter Unit	1000 mL	Durapore (PVDF)	0.45	Filling Bell	10	SVHVB1010
				Male Luer-Lok	15	SVHVL10RC
				Male Nipple	15	SVHVO1015
					50	SVHVO10RS

[†]EO = ethylene oxide; RS = radiosterilized

Stericap PLUS Filter Units

Universal Bottle-Top Devices for Filtering 2 to 10 L

- Fits on any vacuum-rated bottle, 20 to 67 mm in diameter
- Vented to help prevent filter air lock
- Features fast-flowing, low protein binding Millipore Express PLUS membrane
- Ideal for fast sterilization of tissue culture media, serum, buffers, or other biological solutions

Description	Membrane	Pore Size (µm)	Qty/Pk	Catalogue No.
Stericap PLUS Filter Unit	Millipore Express PLUS (PES)	0.22	10	SCGPCAPRE



Steripak Filter Units

Pump-Driven Filters for Volumes up to 20 L

Steripak filter units are designed for larger scale pressure-driven filtration of tissue culture media with or without serum. The units are single-use and come in two volume sizes. They are supplied sterile and ready to connect to a pump or pressure vessel.

Description	Membrane	Pore Size (µm)	Filter area, cm ²	Qty/Pk	Catalogue No.
Steripak-GP ₁₀ Filter Unit	Millipore Express (PES)	0.22	100	3	SPGPM10RJ
Steripak-GP ₂₀ Filter Unit	Millipore Express (PES)	0.22	200	3	SPGPM20RJ

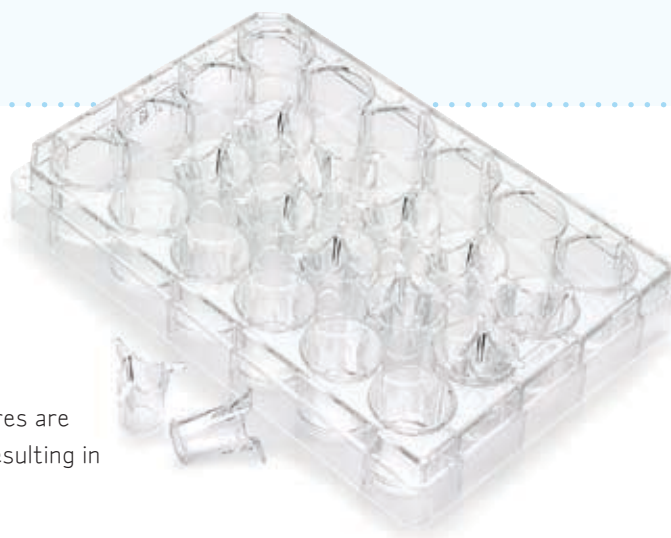


Multiwell Plates

Microporous Membrane-Based Cell Culture

Millicell products promote natural cell growth and incorporate unique design features to improve flexibility in today's laboratories.

Unlike cells grown on plastic plates, membrane-supported cell cultures are able to access media from both their apical and basolateral sides, resulting in cell morphology that mimics cells grown *in vivo*.



Description	Membrane	Pore Size (μm)	Device Size	Qty/Pk	Catalogue No.
Millicell Inserts Pre-loaded in Receiver Plates	PET	0.4	12 hanging inserts preloaded in 24-well receiver plate	1	PIHT12L04
	PET	8.0			PIEP12L04
Millicell 24-Well Cell Culture Plate Assemblies 	PCF	0.4	24-well cell culture plate, single-well feeder tray, 24-well receiver tray, and lid	1	PSHT010R1
	PET	1.0			PSRP010R1
	PCF	3.0			PSST010R1
	PCF	5.0			PSMT010R1
	PCF	8.0			PSET010R1
	PCF	3.0	24-well cell culture plate, 24-well receiver tray, and lid	5	PSST010R5
	PCF	5.0			PSMT010R5
	PCF	8.0			PSET010R5
	PCF	0.4	24-well cell culture plate, single-well feeder tray, and lid	5	PSHT010R5
	PET	1.0			PSRP010R5
Millicell 96-Well Cell Culture Plate Assemblies 	PCF	0.4	96-well cell culture plate, single-well feeder tray, 96-well receiver tray, and lid	1	PSHT004R1
	PET	1.0			PSRP004R1
	PCF	0.4	96-well cell culture plate, 96-well receiver tray, and lid	5	PSHT004S5
	PCF	0.4	96-well cell culture plate, single-well feeder tray, and lid	5	PSHT004R5
	PET	1.0			PSRP004R5

Accessories

Description	Qty/Pk	Catalogue No.
24-Well Receiver Trays with Lids	5	PSMW010R5
Single-Well Feeder Trays with Lids	5	PSSW010R5
96-Well Receiver Trays with Lids	5	MACACORS5
Millicell-ERS Volt-Ohm Meter	1	MERS00001
Replacement Electrodes	1 pair	MERSSTX01

FOR MORE INFORMATION

Please visit www.millipore.com/sterile1filters.



For technical assistance, contact Millipore:
1-800-MILLIPORE (1-800-645-5476)
E-mail: tech_service@millipore.com



For customer service, call **1-800-766-7000**.
To fax an order, use **1-800-926-1166**.
To order online: www.fishersci.com