

## Thermo Scientific Nalgene Rapid-Flow PES Filter Units and Bottle Tops

Superior flow rates reduce downtime for cell culture applications

Thermo Scientific™ Nalgene™ Rapid-Flow™ PES Filters are highly retentive asymmetric PES filters designed to meet the exacting requirements of cell culture media and sera applications. The asymmetric PES filter membrane provides a dual zone (Figure 1) structure of higher porosity on the upstream zone of the membrane that acts like a pre-filter and lower porosity on the downstream zone of the membrane that provides retention at the pore size rating.

When combined with the proprietary Rapid-Flow multi-column membrane support system (Figure 2) the results are superior flow rates with minimal pressure drop, achieving particle specifications in less time and increasing productivity (Figure 3). Nalgene Rapid-Flow PES Filters are available in two configurations (complete filter unit and bottle top only) with retention ratings at 0.1, 0.2, and 0.45  $\mu\text{m}$ .

Cell Culture Applications
Media
Sera
Buffers
Additives

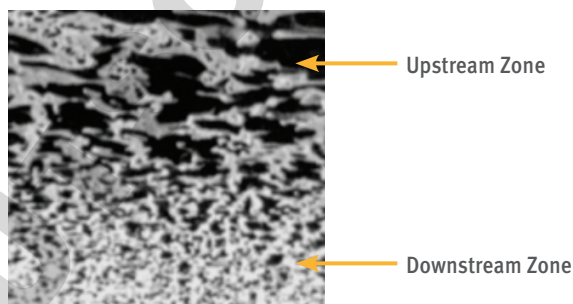


Figure 1

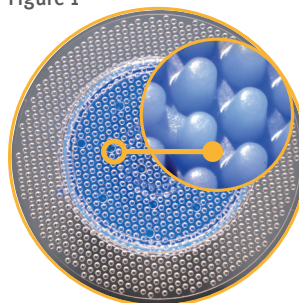


Figure 2

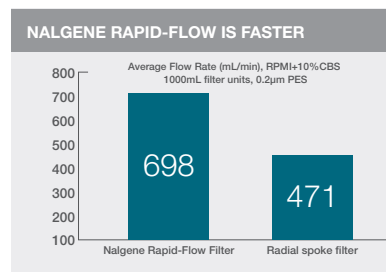


Figure 3

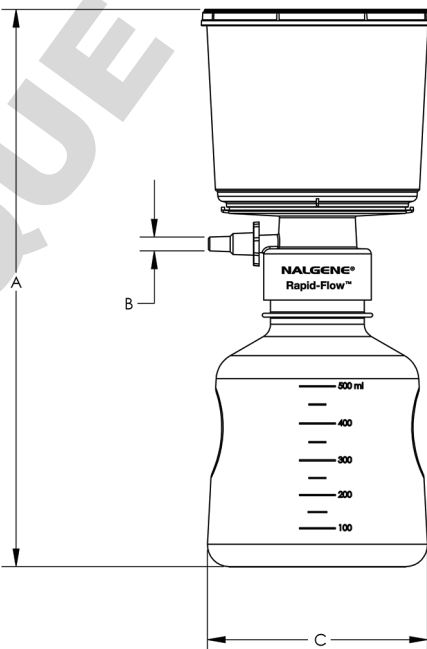
Features	Benefits
Asymmetric Hydrophilic PES Filter Membrane	<ul style="list-style-type: none"> <li>Dual porosity zone provides higher flow rates with minimal pressure drop</li> <li>No pre-wetting and filter flushing required</li> <li>Lowest protein binding and extractables</li> </ul>
Proprietary Multi-Column Filter Support	<ul style="list-style-type: none"> <li>Uniform support structure with consistent spacing across the membrane enables superior flow rates</li> </ul>
Leak-Proof Screw Cap	<ul style="list-style-type: none"> <li>Extends shelf life of filtered reagents by minimizing pH shift in the storage bottle</li> </ul>
Certificate of Quality	<ul style="list-style-type: none"> <li>Ensures product consistency and traceability</li> </ul>

Only Nalgene has the unique Rapid-Flow™ membrane support system that uses an evenly-spaced array of columns to provide greater membrane stability - resulting in faster flow and higher throughput of fluids. With low protein binding and low extractables, Nalgene PES Filter Units offer the best choice for cell culture media, serum, additives and buffers.

Ordering information						
Nalgene Filters with PES Membrane						
Description	Pore Size $\mu\text{m}$	Capacity mL	Membr. Diam. mm	Fits Bottle Neck Size	No. per pack / case	Catalog Number
The complete Nalgene Filter Unit system combines the Rapid Flow bottle top filter with built-in vacuum adapter and dust cover, attached to a receiver bottle featuring a wide-base for improved stability on the benchtop, and a leak proof cap which maintains pH of stored media better than the competition.	<b>0.1</b> <i>used for sterile filtration and mycoplasma removal</i>	150	50	45 mm thread	Individually packed; 12 per case	565-0010
		250	50	45 mm thread	Individually packed; 12 per case	568-0010
		500	75	45 mm thread	Individually packed; 12 per case	566-0010
		1000	90	45 mm thread	Individually packed; 12 per case	567-0010
		50	50	conical tube	Individually packed; 12 per case	564-0020
	<b>0.2</b> <i>used for sterile filtration *Stem Cell Tested</i>	150	50	45 mm thread	Individually packed; 12 per case	565-0020
		250	50	45 mm thread	Individually packed; 12 per case	568-0020
		500	75	45 mm thread	Individually packed; 12 per case	566-0020
		90	45 mm thread	Individually packed; 12 per case	569-0020	
		1000	90	45 mm thread	Individually packed; 12 per case	567-0020
The Nalgene PES Bottle Top Filters, with built-in vacuum adapter and dust cover can be used with narrow or wide mouth receiver bottles; 33 mm to 45 mm thread.	<b>0.2</b> <i>used for sterile filtration *Stem Cell Tested</i>	150	50	45 mm thread	Individually packed; 12 per case	165-0045
		250	50	45 mm thread	Individually packed; 12 per case	168-0045
		500	75	45 mm thread	Individually packed; 12 per case	166-0045
		90	45 mm thread	Individually packed; 12 per case	169-0045	
		1000	90	45 mm thread	Individually packed; 12 per case	167-0045
	<b>0.45</b> <i>used for clarification</i>	150	50	33 mm thread	Individually packed; 12 per case	596-3320
		50	45 mm thread	Individually packed; 12 per case	596-4520	
		500	75	33 mm thread	Individually packed; 12 per case	595-3320
		75	45 mm thread	Individually packed; 12 per case	595-4520	
		1000	90	33 mm thread	Individually packed; 12 per case	597-3320
<b>0.45</b> <i>used for clarification</i>	90	45 mm thread	Individually packed; 12 per case	597-4520		
	150	50	33 mm thread	Individually packed; 12 per case	296-3345	
	50	45 mm thread	Individually packed; 12 per case	296-4545		
	500	75	33 mm thread	Individually packed; 12 per case	295-3345	
	75	45 mm thread	Individually packed; 12 per case	295-4545		

\*Filtered media retains LIF growth factor, passes MEA testing and maintains normal growth and pluripotency of mouse embryonic stem cells

Filter Component	Materials of Construction
Membrane Material	Asymmetric Hydrophilic PES
Multi-Column Support	Virgin Polystyrene
Filter Bottle and Lid	Virgin Polystyrene
Screw Cap	Virgin HDPE (High Density Polyethylene)
Dust Cover	Virgin Polystyrene
Operating Information	Specification
Retention Ratings	0.1, 0.2, 0.45 $\mu\text{m}$
Shelf Life	5 year shelf life for all products EXCEPT 565-0010, 568-0010, 566-0010, and 567-0010 which currently are 2 years from Manufacturing Date
Sterilization	Gamma Irradation to per ISO 11137
Product Testing	Certificate of Quality



Filter Unit Dimensions				
Capacity (mL)	150	250	500	1000
Membrane Dia. (mm)	50	50	75/90	90
A (Overall height mm)	156	200	249	327
B (Quick connect diameter mm)	6.4/9.5 ID	6.4/9.5 ID	6.4/9.5 ID	6.4/9.5 ID
C (Receiver bottle diameter mm)	89	89	98	114
Pore Size ( $\mu\text{m}$ )	available in 0.1; 0.2; 0.45			

**Nalgene Filter Unit**  
Shown: 500 mL Nalgene Rapid Flow Filter Unit

Find out more at [thermofisher.com/rapidflow](http://thermofisher.com/rapidflow)