

Lab plastic essentials

Nalgene Rapid-Flow filtration selection guide

Making the right selection of Thermo Scientific™ Nalgene™ filters and storage bottles

Select the right pore size	<ul style="list-style-type: none"> • 0.1 micron for sterile filtration and Mycoplasma removal • 0.2 micron for sterile filtration • 0.45 micron for clarification • 0.8 micron for prefiltration and clarification
Select the right capacity	Choose from 50 mL, 115 mL, 150 mL, 250 mL, 500 mL, 1000 mL capacity filter units and bottle top filters.
Select the right membrane diameter	Options include 50 mm, 75 mm and 90 mm diameter. Wider membranes mean faster flow and more throughput so you don't have to reach for a second filter for difficult-to-filter fluids. Only Nalgene filters have 90 mm diameter membranes in 500 mL and 1000 mL size filter units and bottle top filters.
Select the right membrane	<ul style="list-style-type: none"> • PES (polyethersulfone) is the ultimate cell culture membrane with low protein binding so there is less chance of removing critical protein from your media. It is hydrophilic, so no external wetting agents or surfactants are needed, resulting in low extractables. And, it's fast so you spend less time waiting. • SFCA (surfactant-free cellulose acetate) contains none of the wetting agents found in standard CA (cellulose acetate), and also has lower protein binding than standard CA. If you use CA for media filtration you owe it to your cell lines to switch to SFCA; It's only available in Nalgene filter units and bottle top filters. • CN (cellulose acetate) is ideal for filtering water, buffers and other aqueous solutions when proteins binding is not a concern or if you want to remove extraneous protein. • NYL (nylon) membranes are tough, alcohol resistant and have low levels of extractables. Choose them for filtering alcoholic solutions.
Select the right media storage bottle	Nalgene storage bottle cap design prevents gas exchange and maintains pH of stored media for up to two weeks. Nalgene storage bottles are available in 150, 250, 500 and 1000 mL sizes, separately or as an integral part of all Nalgene filter units.
Select the right quality	Every lot is Nalgene-certified to be sterile, non-cytotoxic, non-pyrogenic, and to have passed strict performance tests. We guarantee it!

The beauty of controlled growth

Filtration selection guide for cell culture

Choose the right pore size

Pore size	Test organism	Best for
0.1µm	Acholeplasma laidlawii	Cell Culture (Sterilization and Mycoplasma removal)
0.2µm	Brevundimonas diminuta	Cell Culture (Sterilization)
0.45µm	Serratia marcescens	Buffers (clarification, particle removal)
0.8µm	Saccharomyces cerevisiae	Clarification

Choose the right membrane

Membrane	Attributes	Best for
PES*	Lowest protein binding, lowest extractables, fastest flow	Cell Culture media and serum
SFCA**	Lower extractables than standard cellulose acetate	Cell Culture media and serum
CN***	Higher extractables	Buffers
Nylon	Higher protein binding, alcohol resistance	Alcoholic solutions

* Polyethersulfone, **Surfactant-free Cellulose Acetate, ***Cellulose Nitrate

Choose the right storage bottle

Leak proof cap on Nalgene filter receiver bottles minimizes pH shift of stored media.

Learn more at thermofisher.com/rapidflow

thermo scientific