Highlighting innovative design features
and useful application information for
Thermo Scientific Nalgene Rapid-Flow Filters

smart notes

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Q&A

Does laboratory filtration of culture media affect cell growth?

Laboratory filtration of culture media does not affect cell growth as long as the correct filter and filter membrane are used.

Bottle Top filters come with a number of different membranes. Because of its low protein binding, low extractables and high flow rate, the best membrane for filtering cell culture fluids is aPES (asymmetric polyethersulfone), available in Thermo Scientific™ Nalgene™ Rapid-Flow™ filters. Rapid-Flow filters also have a unique membrane support plate design for superior performance.

Why Thermo Scientific Rapid-Flow filters?

Sterile filtering of media effectively reduces contamination during culture

This precautionary measure is sometimes curtailed for fear of removing critical media components or adding deleterious compounds during the filtration process.

The aPES membrane does it right

The aPES membrane in Nalgene Rapid-Flow filter does not diminish the important growth factor LIF in the media, nor does it affect the growth kinetics of the cells. (Fig. 1 and Fig. 2)

The Nalgene Rapid-Flow filter does it quickly

The Rapid Flow design speeds up the filtration process by 20-25% compared to other brands of filters. (Fig. 3)

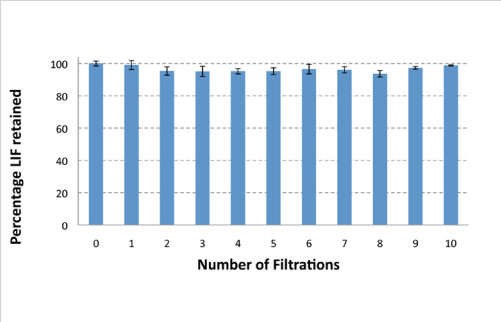

Figure 1. Filtration using Nalgene Rapid-Flow aPES filters did not significantly affect leukemia inhibitory factor (LIF) concentration in mouse embryonic stem cell growth media.

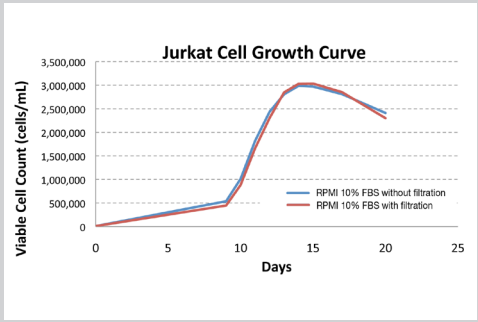

Figure 2. Filtration of RPMI media containing 10% FBS using Nalgene Rapid-Flow aPES filters did not change the growth kinetics of Jurkat cells.

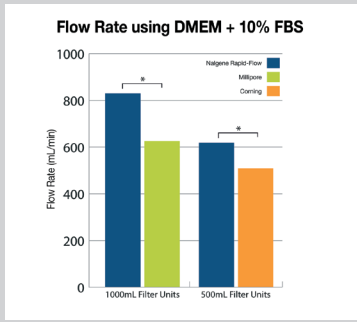

Figure 3. Filtration of DMEM media containing 10% FBSis faster with Nalgene aPES filter units (*p<0.05).

Summary

Media filtered through Rapid-Flow filters maintain growth factor and support normal cell growth and morphology. Rapid-Flow filters are a safe solution for maintaining sterility in cell cultures.

See how Thermo Scientific Nalgene Rapid-Flow filters provide the last line of defense against contamination. Learn more at www.thermoscientific.com/rapidflow

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