

# SmartNotes

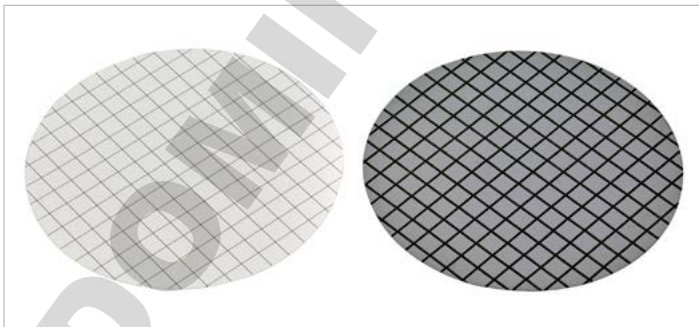
# Q A

## Does Thermo Fisher Scientific offer products for use in the growth and enumeration of *Legionella* in water quality testing according to the ISO 11731 standard?

Yes. Thermo Scientific™ Nalgene™ Water Quality Membranes (Cat. No. DS0205-6045) and Nalgene Analytical Test Filter Funnels 100mL (Cat. No. 147-0045) and 250mL (Cat. No. 147-2045) can be used to filter microorganisms out of water samples. In addition, Thermo Scientific™ Oxoid™ *Legionella* CYE Agar Base (Cat. No. CM0655) and growth supplements can be used to cultivate *Legionella*. These products can be used together for water quality testing and enumeration of *Legionella* per ISO 11731 standard.

### What is the ISO 11731 standard?

ISO (International Organization for Standardization) established a worldwide standard method for cultivation and enumeration of *Legionella* because of the public health risks associated with strains that infect humans causing Legionnaires' Disease. There are various environmental sources (hot/cold water distributions systems including air conditioning units, shower heads, etc.) that can harbor *Legionella*; therefore, monitoring is mandated in certain healthcare facilities. The standard calls for a facility to have a management program that includes environmental testing of water for *Legionella* which reduces the risk of transmission.



Nalgene Water Quality Membranes

**How can Nalgene Water Quality Membranes (Cat. No. DS0205-6045) and Nalgene Analytical Test Filter Funnels 100mL (Cat. No. 147-0045) and 250mL (Cat. No. 147-2045) be used in environmental testing of water with Oxoid culture media and growth supplements (Cat. No. CM0655)?**

Cellulose nitrate membranes and filter funnels can be used to recover and enumerate *Legionella* during filtration of the water sample. The Oxoid culture media and growth supplements can be used to cultivate *Legionella* in a sample. In short, a water sample is vacuum filtered through the membrane and, if present, the *Legionella* are retained on the filter. After water filtration, the filter is removed from the funnel and placed on *Legionella*-specific media, buffered charcoal yeast extract (Cat. No. CM0655), for growth and enumeration of colonies. The enumeration data from the membrane filtration can help establish proper disinfectant protocols in a healthcare facility, lowering the risk of *Legionella* transmission.

**Why are Nalgene membranes and analytical filter funnels a good choice for *Legionella* testing?**

The membranes are made of cellulose nitrate, measuring 47mm in diameter with 0.45 µM pore size and therefore, meet the requirements of ISO 11731 section 5.5.2 for “membrane filter for direct placing on culture media.” The dry membranes are grey in color with a black grid and subsequently turn black with a grey grid during use with liquid. The dark color makes them superior to white membranes for visualizing *Legionella* colonies because the colonies are white and contrast nicely against the dark colored membrane and black grid.

**Summary**

Nalgene Water Quality Membranes (Cat. No. DS0205-6045) and Nalgene Analytical Test Filter Funnels 100mL (Cat. No. 147-0045) and 250mL (Cat. No. 147-2045), Oxoid *Legionella* CYE Agar Base (Cat. No. CM0655) and growth supplements can be used in the growth and enumeration of *Legionella* in water quality testing according to the ISO 11731 standard. The black membranes are superior because of the contrast of their color to the white colonies of *Legionella* and should be considered when establishing protocols for water quality testing.



**Nalgene Analytical Test Filter Funnel**

Find out more at [thermofisher.com/filtration](https://www.thermofisher.com/filtration)