

AquaVial PRO500

Nanoparticle-based microbial detection for treated water applications

Manufactured by ExactBlue Technologies Inc.

3 Test Pack - APF-003

12 Test Pack - APF-012

AquaVial PRO is a nanoparticle-based microbial cell wall surface recognition technology, designed to allow qualitative detection of waterborne microorganisms in treated water (drinking, swimming, and industrial water). The test uses a combination of advanced filtration techniques and functionalized gold nanoparticles to visually detect viable cells of bacteria, fungi and other unicellular microorganisms at concentrations over the set detection limit.

Analytical Performance

Detection Limit	Time to Result
500 CFU/mL	15 minutes

AquaVial PRO500 was tested and verified to detect bacteria levels over 500 CFU/mL.

Components

Filter

Filter Style	Syringe filter tips
Filter Dimensions	Length: 125 +/- 2mm; Tip diameter: 4.7 – 5.3 mm
Design	Narrow housing to minimize hold-up volume and enable easy aspiration and dispensing in ampoules, test tubes, and other small vessels
Membrane	0.1µm PES hollow fiber
Filtration Surface	> 36–40 cm ²
Inlet Style	Female luer lock

Reagent Vial

Vial Dimensions	H (cap on): 58mm; H (cap off): 57mm; Diam: 16mm
Vial Volume	5.0 mL
Vial Material	Plastic vial with blue cap
Reagent Volume	1.0 mL +/- 0.05 mL
Reagent Type	Chemically functionalized gold nanoparticles (antibody-free)
Maximum Absorption Wavelength	635 +/- 3 nm
Maximum Absorption	0.4 +/- 0.05

Saline Solution Vial

Vial Dimensions	H (cap on): 46mm; H (cap off): 45mm; Diam: 13mm
Vial Volume	4.0 mL
Vial Material	Plastic vial with natural colour cap
Reagent Volume	3 +/- 0.05 mL
Reagent Type	0.1% NaCl (w/w) – sterile solution
Sterilization	Microfiltration + autoclave

Syringe

Volume	20 mL
Style	Luer lock
Type	Single or multiple use

Product Packaging and Storage

Attribute	Value
Kit content	1 filter cartridge, 1 syringe, 1 reagent vial, 1 saline solution vial
Packaging	Box of 3 kits
Storage	Store in a cool, dry place
Shelf life	2 years from date of manufacturing

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