

# TECHNICAL DATA SHEET

## AquaVial™ PRO (AVP-203-1; AVP-224-2)



### Product Description:

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.

### Detection range and capabilities

To date, AquaVial™ PRO was tested and verified to detect the following microorganisms:





The test is available in configurations for two detection limits:

- AquaVial™ PRO 500 --> detects bacteria levels over 500 CFU/ml
- AquaVial™ PRO 200--> detects bacteria levels over 200 CFU/ml

Detection range

Sample volume/Colour		PINK	PURPLE	CLEAR
Aquavial PRO500	20 ml	<500CFU/ml	500-2,000CFU/ml	>2,000CFU/ml
Aquavial PRO200	50 ml	<200CFU/ml	200-1,000CFU/ml	>1,000CFU/ml

- Legionella pneumophila variant Lp01,
- Salmonella enterica ATCC10708,
- Staphylococcus aureus ATCC 6538,
- Escherichia coli (ATCC PTA-4752)
- Bacillus megaterium (ATCC 21209),
- Pseudomonas putida (ATCC 12633),
- Baker's yeast,
- Klebsiella Pulmonae,
- Pseudomonas aeruginosa ATCC 15442
- Aspergillus Niger,
- Mycobacteria terrae,
- Candida albicans

Filter Cartridge		
	Filter style	Syringe filter tips
	Filter dimensions	Length: 125+/-2 mm; Tip diam: 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 <sup>2</sup>
	Inlet Style	Female Luer Lock
Reagent Vial		
	Vial dimensions	H (cap on): 58 mm; H (cap off): 57 mm; Diam: 16 mm
	Vial volume	5.0 ml
	Vial material	Plastic vial, branded, with red cap, graded
	Reagent Volume	1.0+/-0.05ml
	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): 47 mm; H (cap off): 45 mm ; Diam: 10 mm
	Vial volume	2.0 ml
	Vial material	Plastic vial, with natural color cap
	Reagent Volume	1.2+/-0.05 ml
	Reagent type	0.1% NaCl (w/w)- sterile solution
	Sterilization	Microfiltration+ autoclave
Syringe		
	Volume	20 ml (for sensitivity of 500CFU/ml) & 50 ml (for sensitivity of 200 CFU.ml)
	Style	Luer lock
	Type	Single or multiple use

### Product Packaging and storage conditions

Kit content	1 filter cartridge, 1 syringe, 1 reagent vial, 1 saline solution vial
Kit package	Transparent bag
Packaging	Box of 3 Kits, Box of 24 kits
Storage conditions	Store in a cool dry place
Shelf life	2 Years from the date of manufacturing