

## TaqMan® *Pseudomonas aeruginosa* Detection Kit

Make early detection a reality



### TaqMan® Pathogen Detection Kits

- *Pseudomonas aeruginosa*
- *Campylobacter jejuni*
- *Cronobacter sakazakii*
- *E. coli* O157:H7
- *Listeria monocytogenes*
- *Salmonella enterica*
- *Staphylococcus aureus*

### A Classic Opportunistic Pathogen

The TaqMan® *Pseudomonas aeruginosa* Detection Kit is designed to screen for this ubiquitous bacterium in a wide range of environmental samples (including soil, air and water) and in food. Furthermore, *Pseudomonas aeruginosa* (*P. aeruginosa*) plays an important role in the quality control of certain raw materials and finished products in the pharmaceutical and cosmetic industries. *P. aeruginosa* is a typical cause of recreational water illnesses, like “hot-tub rash”, which are caused by lack of proper attention to water quality. Due to its ability to form biofilms, *P. aeruginosa* can be very difficult to eradicate from manmade water systems.

### Real-Time PCR Delivers

The TaqMan® *Pseudomonas aeruginosa* Detection Kit uses proven real-time PCR technology designed to provide:

- Highly selective identification of *P. aeruginosa* in a wide variety of samples
- Verified performance
- Ready-to-use convenience
- Reduced risk of contamination

### Faster than Conventional USP and EP Test Methods

TaqMan-based real-time PCR can prove the absence of *P. aeruginosa* and other bacteria specified in the United States Pharmacopeia (USP) Chapter 61, and European Pharmacopeia (EP) 2, 2.6.13, faster and more efficiently than conventional methods.<sup>1</sup>

<sup>1</sup> P. Merker, L. Grohmann, R. Petersen, J. Ladewig, K.P. Gerbling, and F.R. Lauter, “Alternative microbial testing: a new DNA-based detection system for specified microorganisms in pharmaceutical preparations”, *PDA Journal of Pharmaceutical Science & Technology*, 4 (6), 470-477 (2000).

## Results in three easy steps

### 1. Enrich samples



### 2. Prepare samples



### 3. Run samples



## Detect *P. aeruginosa* Early

Current methods used to identify *P. aeruginosa* are based on classic culture methods. Using these methods, it is difficult—if not impossible—to detect single colonies of the organism in the presence of species with similar characteristics. The TaqMan *Pseudomonas aeruginosa* Detection Kit provides the sensitivity and specificity required to detect low copy numbers of the organism rapidly.

## Use DNA-Based Real-Time PCR

The TaqMan® *Pseudomonas aeruginosa* Detection Kit uses PCR to amplify a DNA target sequence unique to *P. aeruginosa*. Identification is made if, and only if, the target sequence is present. The detection process can be performed in less than two hours on virtually any sample.

## Rely on Applied Biosystems

The TaqMan® *Pseudomonas aeruginosa* Detection Kit is designed using Applied Biosystems sophisticated bioinformatics process to increase the assays' reliability in meeting the following criteria:

- DNA of the target organism yields a positive signal
- DNA of 3 closely related organisms yields a negative signal
- Negative controls yield a negative signal

Validation for specific applications of the TaqMan® *Pseudomonas aeruginosa* Detection Kit must be performed in your laboratory according to your laboratory's validation procedures.

## Benefit from Unique Kit Format

The TaqMan assay's easy-to-use, closed-tube format minimizes the risk of contamination. Once samples and reagents are added, the tubes remain closed throughout the amplification and detection process. All TaqMan Pathogen Detection Kits are based on the same standardized protocol. This enables you to run any combination of these assays together in the same sample run.

## Use a Complete Solution with an Expanding Menu

The TaqMan *Pseudomonas aeruginosa* Detection Kit is part of a fully integrated, single-vendor solution that includes Applied Biosystems real-time PCR systems, software and reagents designed to deliver superior speed, simplicity and accuracy.

TaqMan Pathogen Detection Kits are available for the following organisms:

- *Pseudomonas aeruginosa*<sup>2</sup>  
(p/n 4368604)
- *Salmonella enterica*<sup>3</sup>  
Certified by AOAC and AFNOR  
(p/n 4366104)
- *Campylobacter jejuni*<sup>3</sup>  
(p/n 4366098)
- *Cronobacter sakazakii*<sup>2</sup>  
(p/n 4382492)
- *E. coli* O157:H7<sup>3</sup>  
(p/n 4366100)
- *Listeria monocytogenes*<sup>3</sup>  
(p/n 4366102)
- *Staphylococcus aureus*<sup>2</sup>  
(p/n 4368606)

<sup>2</sup>These kits have been verified through Applied Biosystems' internal validation procedures

<sup>3</sup>These kits have been validated as described in "TaqMan® Pathogen Detection Kits - Validation Reference White Paper" (stock number 116WP01-01).

For environmental (including soil, air and water), quality control, and food and finished products testing; for research use only. Not for use in diagnostic procedures (including, in the United States, epidemiology use with human or animal samples by public health officials). This product has not been cleared or otherwise approved by the United States Food and Drug Administration or by any other regulatory body in any country, or under the European IVD Directive, for diagnostic or any other clinical purpose. The purchaser or user of this product agrees not to use this product for diagnostic or other clinical purposes.

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