

[Cat. No.] **K-6814**

## Introduction

AccuPower® Legionella pneumophila Real-Time PCR Kit is a product that can specifically detect *Legionella pneumophila* (*L. pneumophila*) by real-time PCR.

*L. pneumophila* is a gram-negative bacterium that mainly causes pneumonia and is known to cause sinusitis or endocarditis.

*L. pneumophila* is symbiotic with amoeba in fresh water and is easily transmitted over long distances through a building's plumbing.

Human-to-human transmission is a rare case, but *L. pneumophila* needs caution to prevent transmission through droplet or aerosols such as showers and decorative fountains.

This product contains all Real-time PCR components specific to *L. pneumophila*, including DNA polymerase, dNTPs, and reaction buffer. The users can easily prepare reaction mixture simply by adding template DNA, Oligo Mix and DEPC-D.W.

## Features & Benefits

- Convenience: All necessary reactants for real-time PCR are included in a tube (i.e., Master Mix Type), allowing the users to perform reaction simply by adding template DNA, Oligo Mix, and DEPC-D.W.
- Sensitivity: By using BIONEER's HotStart Taq DNA Polymerase that minimizes non-specific reactions and maximizes reaction efficiency, only the target gene can be effectively amplified even with a trace amount of template DNA.

## Components

Components	Amount
2X Master Mix	625 µl x 2 ea
Oligo Mix	500 µl
DEPC-D.W.	1.8 ml
Positive Control (1x10 <sup>8</sup> copies/µl)	50 µl

\* **Note:** For research use only. Not for use in diagnostic or therapeutic procedures.

## Composition

Composition	25 µl reaction
2X Master Mix	Taq DNA Polymerase 2.5 U
	dNTPs (dATP, dCTP, dGTP, dTTP) Each 300 µM
	Reaction buffer with 2 mM MgCl <sub>2</sub> 1X
Oligo Mix	<i>L. pneumophila</i> Forward primer 0.6 µM
	<i>L. pneumophila</i> Reverse primer 0.6 µM
	<i>L. pneumophila</i> Probe (FAM) 0.6 µM
	ROX dye 1X

## Specifications

Taq DNA Polymerase	
5'→3' exonuclease activity	Yes
3'→5' exonuclease activity	No
3'-A overhang	Yes

## Storage

Store at -20°C. If stored in the recommended temperature, this product will be stable until the expiration date printed out on the label.

## Online Resources



English

Visit our **product page** for additional information and protocols

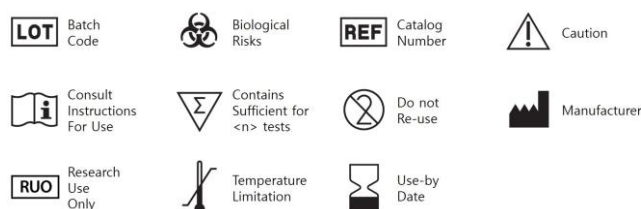
## Ordering Information

Description	Cat. No.
AccuPower® Legionella pneumophila Real-Time PCR Kit, 1.25 ml of 2X Master Mix solution, 100 tests	K-6814




## Notice

BIONEER corporation reserves the right to make corrections, modifications, improvements and other changes to its products, services, specifications or product descriptions at any time without notice.

## Explanation of Symbols



## Experimental Procedures

Steps		Procedure Details																
1	<div></div> <div>Preparation of reaction mixture</div>	1. Thaw all components of <i>AccuPower</i> ® Legionella pneumophila Real-Time PCR Kit on ice and mix thoroughly before use. Then, briefly spin down all components.																
2	<div></div> <div>Composition of reaction mixture</div>	<div>2. Add all components into PCR tubes (not provided) or a plate (not provided) referring to the following list of components (Based on 1 test).</div> <table><tr><th>Components</th><th>Amount</th></tr><tr><td>2X Master Mix</td><td>12.5 µl</td></tr><tr><td>Oligo Mix</td><td>5 µl</td></tr><tr><td>Template DNA</td><td>1-5 µl</td></tr><tr><td>DEPC-D.W.</td><td>Variable</td></tr><tr><td>Total volume</td><td>25 µl</td></tr></table>		Components	Amount	2X Master Mix	12.5 µl	Oligo Mix	5 µl	Template DNA	1-5 µl	DEPC-D.W.	Variable	Total volume	25 µl			
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3	<div></div> <div>Real-time PCR</div>	<div>3. Place PCR tubes or plate on the Real-Time Quantitative thermal cycler.</div> <div>4. Perform the reaction under the following conditions.</div> <table><tr><th>Step</th><th>Temperature</th><th>Time</th><th>Cycles</th></tr><tr><td>Pre-denaturation</td><td>95°C</td><td>5 min</td><td>1 cycle</td></tr><tr><td>Denaturation</td><td>95°C</td><td>10 sec</td><td rowspan="2">45 cycles</td></tr><tr><td>Annealing &amp; Extension</td><td>55°C</td><td>20 sec</td></tr></table> <div>* <b>Note:</b> Users can adjust the protocol according to their instrument and template sequences to get optimal results.</div> <div>5. After the reaction is completed, analyze the results.</div>		Step	Temperature	Time	Cycles	Pre-denaturation	95°C	5 min	1 cycle	Denaturation	95°C	10 sec	45 cycles	Annealing & Extension	55°C	20 sec
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