

#### [Cat. No.] K-2968

### Introduction

AccuPower® Listeria monocytogenes Real-Time PCR Kit is a product that can detect Listeria monocytogenes (L. monocytogenes), which causes listeriosis, by real-time PCR.

L. monocytogenes is a gram-positive bacterium known to be a major causative agent of listeriosis. It infects livestock, birds, wildlife, and humans. Animals (cows, sheep, etc.) infected with listeriosis suffer from brain symptoms such as circling, laryngeal paralysis, anorexia, and conjunctivitis appear. The disease can be estimated based on characteristic symptoms, but it is difficult to accurately identify the disease, so it is diagnosed based on isolation and identification of the causative bacteria and pathological findings.

This product contains all Real-time PCR components specific to L. monocytogenes 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
- 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
Oligo Mix	500 μΙ
DEPC-D.W.	1.8 ml
Positive Control (1x10 <sup>8</sup> copies/µI)	50 μl

<sup>\*</sup> 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 U
	dNTPs (dATP, dCTP, dGTP, dTTP)	Each 300 µM
	Reaction buffer with 2 mM MgCl <sub>2</sub>	1X
	L. monocytogenes Forward primer	0.24 µM
Oliga Miy	L. monocytogenes Reverse primer	0.24 µM
Oligo Mix	L. monocytogenes Probe (FAM)	0.24 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**



Visit our product page for additional information and protocols

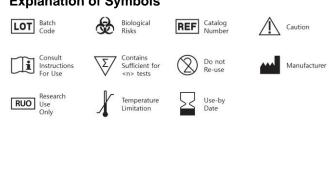
#### **Ordering Information**

Description	Cat. No.
AccuPower® Listeria monocytogenes Real-Time	_
PCR Kit, 1.25 ml of 2X Master Mix solution, 100	K-2968
tests	

### **Notice**

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### **Explanation of Symbols**



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# **Experimental Procedures**

	Steps	Procedure Details				
1	Preparation of reaction mixture	Thaw all components of <i>AccuPower</i> ® Listeria monocytogenes Real-Time PCR Kit on ice and mix thoroughly before use. Then, briefly spin down all components.				
2	Composition of reaction mixture	2. Add all components into PCR tubes (not provided) or to the following list of components (Based on 1 test).  Components  2X Master Mix Oligo Mix Template DNA DEPC-D.W. Total volume		test).  Am  12.  5  1-t		
3	Real-time PCR	3. Place PCR tubes or plate  4. Perform the reaction und  Step  Pre-denaturation  Denaturation  Annealing & Extension  * Note: Users can adjust the proptimal results.  5. After the reaction is compared.	er the following condition  Temperature  95°C  95°C  55°C  rotocol according to their	ons.  Time 5 min 10 sec 20 sec instrument and temp	Cycles 1 cycle 45 cycles	

Revision: 7 (2021-04-12)