

[Cat. No.] **K-6910**

Introduction

AccuPower® Vibrio 3-plex Real-time PCR Kit can detect three major *Vibrio* pathogens: *Vibrio bacteria*, *Vibrio cholerae*, and *Vibrio parahaemolyticus* through real-time PCR.

Vibrio bacteria are gram-negative bacteria that grows in a salty environment. Most people get infected by eating raw or undercooked seafood such as fish and shellfish. It may also enter the human body by exposing open wounds to seawater. Symptoms of *Vibrio* infection may include abdominal pain, diarrhea, fever, vomiting, chills, and acute sepsis.

This product contains all components specific to *Vibrio* including DNA polymerase, primers, dNTPs, probes, and reaction buffer required for real-time PCR and users can easily prepare reaction mixture by simply adding the template DNA and DEPC-D.W.

Features & Benefits

- Convenience: All reactants necessary for real-time PCR are included in a tube, it allows any user simply perform reaction by adding template DNA and DEPC-D.W.
- Sensitivity: By applying the 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
Master Mix	750 µl x 4
<i>Vibrio vulnificus</i> Positive control	100 µl
<i>Vibrio cholerae</i> Positive control	100 µl
<i>Vibrio parahaemolyticus</i> Positive control	100 µl
DEPC-D.W.	1.8 ml

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

Composition

Composition	50 µl reaction
<i>Taq</i> DNA Polymerase	2 U
dNTPs (dATP, dCTP, dGTP, dTTP)	Each 300 µM
Reaction buffer with 2 mM MgCl ₂	1X
<i>Vibrio vulnificus</i> Forward primer	0.6 µM
<i>Vibrio vulnificus</i> Reverse primer	0.6 µM
<i>Vibrio vulnificus</i> probe (TET)	0.4 µM
<i>Vibrio cholerae</i> Forward primer	0.6 µM
<i>Vibrio cholerae</i> Reverse primer	0.6 µM
<i>Vibrio cholerae</i> probe (TAMRA)	0.4 µM
<i>Vibrio parahaemolyticus</i> Forward primer	0.6 µM
<i>Vibrio parahaemolyticus</i> Reverse primer	0.6 µM
<i>Vibrio parahaemolyticus</i> probe (FAM)	0.4 µM

Specifications

<i>Taq</i> 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® Vibrio 3-plex Real-time PCR Kit, 3 ml of Master Mix solution, 96 tests	K-6910




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

Batch Code	Biological Risks	Catalog Number	Caution
Consult Instructions For Use	Contains Sufficient for <n> tests	Do not Re-use	Manufacturer
Research Use Only	Temperature Limitation	Use-by Date	

Experimental Procedures

Steps		Procedure Details																							
1	<div></div> <div>Preparation of reaction mixture</div>	1. Thaw all components of <i>AccuPower</i> ® Vibrio 3-plex 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 component into PCR tubes (not provided) or a plate (not provided) under the following components (Based on 1 test).</div> <table><tr><th colspan="2">Components</th><th colspan="2">Amount</th></tr><tr><td colspan="2">Master Mix</td><td colspan="2">30 µl</td></tr><tr><td colspan="2">Template DNA</td><td colspan="2">5 µl</td></tr><tr><td colspan="2">DEPC-D.W.</td><td colspan="2">15 µl</td></tr><tr><td colspan="2">Total volume</td><td colspan="2">50 µl</td></tr></table>				Components		Amount		Master Mix		30 µl		Template DNA		5 µl		DEPC-D.W.		15 µl		Total volume		50 µl	
Components		Amount																							
Master Mix		30 µl																							
Template DNA		5 µl																							
DEPC-D.W.		15 µl																							
Total volume		50 µl																							
3	<div></div> <div>Real-time PCR</div>	<div>3. Place PCR tubes or a 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>5 sec</td><td rowspan="2">45 cycles</td></tr><tr><td>Annealing & Extension</td><td>60°C</td><td>5 sec</td></tr></table> <div>* Note: 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	5 sec	45 cycles	Annealing & Extension	60°C	5 sec					
Step	Temperature	Time	Cycles																						
Pre-denaturation	95°C	5 min	1 cycle																						
Denaturation	95°C	5 sec	45 cycles																						
Annealing & Extension	60°C	5 sec																							