

[Cat. No.] **K-2993**

Introduction

AccuPower® PRV Real-Time PCR Kit is a PCR product that can detect Piscine orthoreovirus, which causes the disease heart and skeletal muscle inflammation (HSMI) in farmed Atlantic salmon, by real-time PCR. Piscine orthoreovirus (PRV) is a serious virus in salmon aquaculture belonging to the family Reoviridae. PRV has been found present at higher concentration in fish with various diseases. These diseases include HSMI, jaundice syndrome, proliferative darkening syndrome and erythrocytic body inclusion syndrome. PRV is thought to mainly affect aquacultured and maricultured fish stocks.

This product contains all real-time PCR components specific to Piscine orthoreovirus, including RTase, DNA polymerase, primers, dNTPs, reaction buffer. The users can easily prepare reaction mixture simply by adding template RNA 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 RNA and DEPC-D.W.
- Sensitivity: By using BIONEER's PyroHotStart RT reaction and 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 RNA.

Components

Components	Amount
PreMix	8-strips x 12 ea
Positive Control (1x10 ⁸ copies/μl)	50 μl
Sealing film	1 ea
DEPC-D.W.	1.3 ml

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

Composition

Composition	50 μl reaction
PreMix	
RocketScript™ Reverse transcriptase	1 U
Taq DNA Polymerase	3 U
dNTPs (dATP, dCTP, dGTP, dTTP)	Each 300 μM
Reaction buffer with 2 mM MgCl ₂	1X
Oligo	
PRV Forward primer	0.3 μM
PRV Reverse primer	0.3 μM
PRV Probe (FAM)	0.3 μM

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.

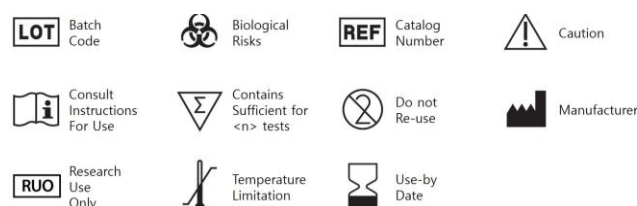
Ordering Information

Description	Cat. No.
AccuPower® PRV Real-Time PCR Kit, Exicycler 8-well strips / 96 tubes	K-2993




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	 Preparation of PCR material	<p>1. Prepare <i>Accupower</i>® PRV Real-Time PCR Kit, template RNA, and DEPC-D.W.</p>																							
2	 PCR reaction solution composition	<p>2. Add all components into PCR tubes or a plate referring to the following list of components (based on 1 test).</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Components</th> <th style="text-align: center;">Volume (μl)</th> </tr> </thead> <tbody> <tr> <td>Template RNA (Positive control)</td> <td style="text-align: center;">1~5</td> </tr> <tr> <td>DEPC-DW</td> <td style="text-align: center;">Up to 50</td> </tr> <tr> <td>Total volume</td> <td style="text-align: center;">50</td> </tr> </tbody> </table> <p>(The volume of the premix dried in the PCR tube is not included.)</p> <p>3. Vortex the reaction solution to completely melt the PreMix, then spin down</p>	Components	Volume (μl)	Template RNA (Positive control)	1~5	DEPC-DW	Up to 50	Total volume	50															
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3	 Real-time PCR	<p>4. After installing the PCR tube in the <i>Exicycler</i>, set the PCR conditions as follows.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Step</th> <th style="text-align: center;">Temperature</th> <th style="text-align: center;">Time</th> <th style="text-align: center;">Cycles</th> </tr> </thead> <tbody> <tr> <td>Reverse Transcription</td> <td style="text-align: center;">50 °C</td> <td style="text-align: center;">15 min</td> <td style="text-align: center;">1 cycle</td> </tr> <tr> <td>Pre-denaturation</td> <td style="text-align: center;">95 °C</td> <td style="text-align: center;">5 min</td> <td style="text-align: center;">1 cycle</td> </tr> <tr> <td>Denaturation</td> <td style="text-align: center;">95 °C</td> <td style="text-align: center;">10 sec</td> <td rowspan="2" style="text-align: center;">45 cycles</td> </tr> <tr> <td>Annealing& Extension</td> <td style="text-align: center;">60 °C</td> <td style="text-align: center;">20 sec</td> </tr> <tr> <td>Scan</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>* Note: Users can adjust the protocol according to their instrument and template sequences to get optimal results.</p> <p>5. After the reaction is completed, analyze the results.</p>	Step	Temperature	Time	Cycles	Reverse Transcription	50 °C	15 min	1 cycle	Pre-denaturation	95 °C	5 min	1 cycle	Denaturation	95 °C	10 sec	45 cycles	Annealing& Extension	60 °C	20 sec	Scan			
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