AccuPower® Squid Real-Time PCR Kit

[Cat. No.] K-6931

Introduction

AccuPower® Squid Real-Time PCR Kit can specifically detect Squid DNA in food products.
There has been a rapid increase in the number of patients with food allergies. This is due to a hypersensitivity reaction of the immune system arising from an unbalanced diet and an unstable immune response. People allergic to any food must check every ingredient before having any processed food. Even a minor number of allergens can be fatal to them. This kit is highly sensitive to Squid DNA, which is one of the major allergies-triggering ingredients.
This product contains all Real-time PCR components specific to Squid, including DNA polymerase, dNTPs, and reaction buffer. The users can easily prepare reaction mixture simply by adding the 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 a template DNA, Oligo Mix, 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
2X Master Mix	625 µl x 2
Oligo Mix	500 µl
50X ROX dye†	100 µl
DEPC-D.W.	1.8 ml

*** Note:** For research use only. Not for use in diagnostic or therapeutic procedures.
† ROX dye is used for normalization of intensity by background subtraction. The use of ROX dye is recommended for Applied Biosystems 7500 Real-Time PCR System, but not required for BIONEER *Exicycler*™ 96 Real-Time PCR System.

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 $MgCl_2$	1X
Oligo Mix	Squid Forward primer	1.2 µM
	Squid Reverse primer	1.2 µM
	Squid Probe (FAM)	1.2 µM
50X ROX dye		1X
DEPC-D.W.		-

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

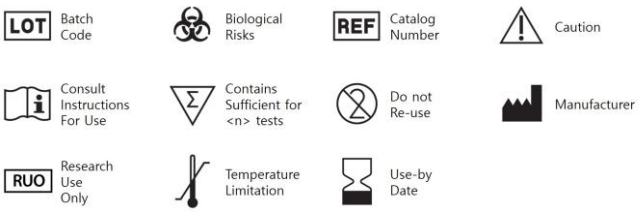
Ordering Information

Description	Cat. No.
AccuPower® Squid Real-Time PCR Kit, 1.25 ml of 2X Master Mix solution, 100 tests	K-6931

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

<table>
<tr><th colspan="2">Steps</th><th>Procedure Details</th></tr>
<tr><td>1</td><td> 
Preparation of reaction mixture</td><td>1. Thaw all components of AccuPower® Squid Real-Time PCR Kit on ice and mix thoroughly before use. Then, briefly spin down all components.</td></tr>
<tr><td>2</td><td> 
Composition of reaction mixture</td><td>2. Add all component into PCR tubes (not provided) or a plate (not provided) under the following components (Based on 1 test).
<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>(Optional) 50X ROX dye</td><td>1X</td></tr>
<tr><td>DEPC-D.W.</td><td>Variable</td></tr>
<tr><td>Total volume</td><td>25 µl</td></tr>
</table></td></tr>
<tr><td>3</td><td> 
Real-time PCR</td><td>3. Place PCR tubes or plate on the Real-Time Quantitative thermal cycler.

4. Perform the reaction under the following conditions.
<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>55°C</td><td>5 sec</td></tr>
</table>
* Note: Users can adjust the protocol according to their instrument and template sequences to get optimal results.

5. After the reaction is completed, analyze the results.</td></tr>
</table>