[Cat. No.] K-2410, K-2411

Introduction

AccuPower® Epigene™ Methylation-Specific PCR PreMix is used for amplifying uracil-rich DNA after bisulfite conversion. This product contains *HotStart Taq* DNA Polymerase to improved specificity by preventing mis-primed products and primer-dimer formations.
All PCR components including, *HotStart Taq* DNA polymerase, dNTPs, reaction buffer, stabilizer, and tracking dye, are vacuum-dried for ease of use. Therefore, simply adding primers and DNA to the dried premix makes it easy to prepare a PCR mixture without any extra process.

Applications

- GC-rich PCR
- DNA methylation analysis

Features & Benefits

- Specificity: Optimized for DNA amplification containing a lot of Uracil (U) like AT-rich Target and Bisulfite-treated DNA.
- User-friendly: Each PCR tube contains necessary components for immediate PCR by simply adding D.W, primer set, and DNA template. The tube also has Tracking Dye and Sedimentation Agents for electrophoresis, eliminating the need for sample loading buffers.
- Stability: Stable kit activity by adding stabilizing agents in the PCR reaction mixture even after long storage period.
- Diversity: Accurate amplification from diverse targets such as gDNA template, Low-copy target, bisulfite-treated DNA.
- Reproducibility: Reproducible experimental results from minimizing lot-to-lot variation under ISO 9001 Quality System.

Composition

Composition	25 μl reaction
HotStart Taq DNA polymerase	1 U
dNTPs (dATP, dCTP, dGTP, dTTP)	Each 250 μM
Reaction Buffer with 1.5 mM $MgCl_2$	1X
Stabilizer and tracking dye	O

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

Specifications

***HotStart Taq* Polymerase**	
5'→3' exonuclease activity	Yes
3'→5' exonuclease activity	No
3' – A overhang	Yes

Storage

Store at -20°C and the *AccuPower® Epigene™* Methylation-Specific PCR PreMix is stable until the expiration date printed on the label.

Precautions

- Wear gloves to prevent contamination.
- Store DNA samples and kits in the separate freezers to avoid contaminations.
- Add the template to the reaction mixture on a clean bench or in a spatially separated location.

Online Resources

Korean English

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

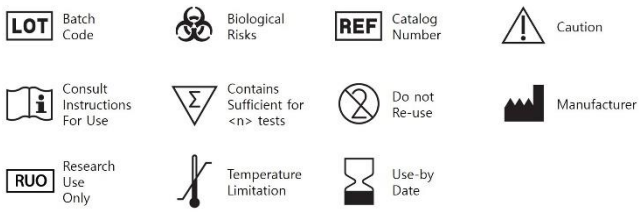
Ordering Information

Description			Cat. No.
0.2 ml thin-wall 8-strip tubes with attached cap	96 tubes	25 μl/rxn	K-2410
	480 tubes	25 μl/rxn	K-2411

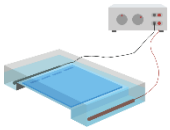
Notice

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> 
Thaw reagents</td><td>1. Thaw AccuPower® Epigene™ Methylation-Specific PCR PreMix, template DNA, and primers on ice and briefly spin down components.</td></tr>
<tr><td>2</td><td> 
Prepare reaction mixture</td><td>2. Add the templates DNA and primers to AccuPower® Epigene™ Methylation-Specific PCR PreMix tubes. Do not calculate the dried pellet.
<table>
<tr><th>Components</th><th>25 µl reaction</th></tr>
<tr><td>Template DNA</td><td>1~500 ng</td></tr>
<tr><td>Forward Primer (10 pmole/ µl)</td><td>0.5~2 µl</td></tr>
<tr><td>Reverse Primer (10 pmole/ µl)</td><td>0.5~2 µl</td></tr>
<tr><td>D.W.</td><td>Variable (up to 25 µl)</td></tr>
<tr><td>Total volume</td><td>25 µl</td></tr>
</table>
3. Dissolve the vacuum-dried pellet completely using the centrifuge or pipetting for 30 seconds, and briefly spin down. If you are using the BIONEER ExiSpin™ Vortex/Centrifuge, follow the recommended settings below.
<table>
<tr><th>Step</th><th colspan="2">Setting</th><th></th></tr>
<tr><td>Vortex</td><td>High</td><td>15 sec</td><td rowspan="2">4 cycles</td></tr>
<tr><td>Spin</td><td>1,500 rpm</td><td>5 sec</td></tr>
</table></td></tr>
<tr><td>3</td><td> 
Perform the reaction in a thermal cycler</td><td>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>15~30 sec</td><td rowspan="3">25~35 cycles</td></tr>
<tr><td>Annealing</td><td>45~65°C</td><td>15~30 sec</td></tr>
<tr><td>Extension</td><td>72°C</td><td>1min/kb</td></tr>
<tr><td>Final Extension</td><td>72°C</td><td>3~5 min</td><td>1 cycle</td></tr>
</table>
* Note: The annealing temperature depends on the melting point of the primers.</td></tr>
<tr><td>4</td><td> 
Analyze with gel electrophoresis</td><td>5. After the reaction, maintain the reaction mixture at 4°C. The samples can be stored at -20°C until use.
6. Load 5 µl of PCR product on agarose gel without adding a loading dye and analyze the PCR products.</td></tr>
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