

[Cat. No.] **S-6042-TH0B**

Introduction

The *AccuPower*® qPCR Array System: Human Reference qPCR primer B set is constructed in 8-tube strip format to screen various reference genes for several times. Since the data are generated based on MIQE guidelines*, the results can be used for SCI paper publication.

The Human Reference qPCR primer B set contains 8 reference genes. *AccuPower*® qPCR Array System: Human Reference qPCR primer set is composed of two types of set, A and B. Type A set contains reference genes primers which are commonly used. Reference genes in Type B set are relatively not commonly used than Type A set. If the screening result from A set is poor, try to use B set to select more suitable reference genes.

The primer set is designed to provide high reproducibility and better sensitivity in experiments along with significantly reducing nonspecific reactions. Add your template DNA, 2X Master Mix (intercalating dye type), and the primer from qPCR primer set into the 96 well plate and you can get a reliable data simply and conveniently.

* Bustin, S.A., et al. 2009. The MIQE Guidelines: Minimum Information for Publication of Quantitative Real-Time PCR Experiments, *Clinical Chemistry* 55:4, 611-622.

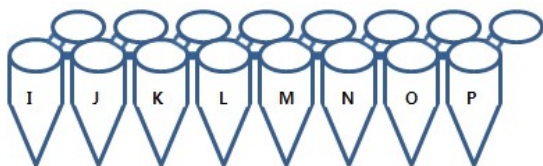
Features & Benefits

- Convenience: 16 kinds of commonly used reference genes (A set: 8 genes/ B set: 8 genes) provided are ready to be screened.
- Fidelity: qPCR primer with qPCR efficiency of 90-110% ensures detection limit of 100 copies.
- Economic: Time and cost for primer design, synthesis and efficiency assays are reduced.

Components

Components		Amount
<i>AccuPower</i> ® qPCR Array System: Human Reference qPCR primer B set		8-tube strip x 2 0.3 nmol

Gene Table



#	Gene Symbol	Description
I	ALAS1	5'-aminolevulinatase synthase 1
J	H6PD	Hexose-6-phosphate dehydrogenase (glucose 1-dehydrogenase)
K	PGK1	Phosphoglycerate kinase 1
L	TBP	TATA box binding protein
M	TFRC	Transferrin receptor
N	TUBB	Tubulin, beta class I
O	UBC	Ubiquitin C
P	YWHAZ	Tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta

Storage

- This product is lyophilized and shipped at ambient temperature.
- Store at ambient temperature (15-20°C) without direct sunlight for long term storage. Once dispensed, primers should be stored at -20°C and repeated freeze and thaw cycles (more than once) are not recommended.

Online Resources



Korean



English

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

Ordering Information

Description		Cat. No.
<i>AccuPower</i> ® qPCR Array System: Human Reference qPCR primer B set	20 rxn	S-6042-TH0B
<i>AccuPower</i> ® qPCR Array System: Single gene qPCR Primer Set	200 rxn	S-6042-S200

* **Note:** The selected reference gene can be ordered in 200 rxn increments.

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



Caution



Consult Instructions For Use


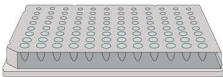



Do not Re-use



Use-by Date

Experimental Procedures

Steps		Procedure Details																															
1	 Preparation of primers	<p>1. Dissolve primers in 50 µl of nuclease-free water to make a concentration of 3 pmol/µl.</p>																															
2	 Preparation of reaction mixture	<p>2. Add template DNA, primers, nuclease-free water, and <i>AccuPower® 2X GreenStar™</i> qPCR Master Mix (K-6251, not provided) into real-time PCR plate to make a total volume of 20 µl or 50 µl.</p> <ul style="list-style-type: none"> Preparation of reaction mixture <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Components</th> <th style="text-align: center;">20 µl reaction</th> <th style="text-align: center;">50 µl reaction</th> </tr> </thead> <tbody> <tr> <td><i>AccuPower® 2X GreenStar™</i> qPCR Master Mix</td> <td style="text-align: center;">10 µl</td> <td style="text-align: center;">25 µl</td> </tr> <tr> <td>Template DNA</td> <td style="text-align: center;">5 pg-100 ng</td> <td style="text-align: center;">5 pg-100 ng</td> </tr> <tr> <td>qPCR primer (3 pmol/µl)</td> <td style="text-align: center;">2 µl</td> <td style="text-align: center;">5 µl</td> </tr> <tr> <td>Nuclease-free water</td> <td style="text-align: center;">Variable</td> <td style="text-align: center;">Variable</td> </tr> <tr> <td>Total volume</td> <td style="text-align: center;">20 µl</td> <td style="text-align: center;">50 µl</td> </tr> </tbody> </table> <p>3. Seal real-time PCR plate with adhesive optical sealing film (3111-4110, not provided) and briefly spin down.</p>	Components	20 µl reaction	50 µl reaction	<i>AccuPower® 2X GreenStar™</i> qPCR Master Mix	10 µl	25 µl	Template DNA	5 pg-100 ng	5 pg-100 ng	qPCR primer (3 pmol/µl)	2 µl	5 µl	Nuclease-free water	Variable	Variable	Total volume	20 µl	50 µl													
Components	20 µl reaction	50 µl reaction																															
<i>AccuPower® 2X GreenStar™</i> qPCR Master Mix	10 µl	25 µl																															
Template DNA	5 pg-100 ng	5 pg-100 ng																															
qPCR primer (3 pmol/µl)	2 µl	5 µl																															
Nuclease-free water	Variable	Variable																															
Total volume	20 µl	50 µl																															
3	 Real-time PCR	<p>4. Perform the reaction under the following conditions.</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>Pre-denaturation</td> <td style="text-align: center;">95°C</td> <td style="text-align: center;">10 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;">5 sec</td> <td></td> </tr> <tr> <td>Annealing</td> <td style="text-align: center;">58°C</td> <td style="text-align: center;">25 sec</td> <td rowspan="2" style="text-align: center;">40 cycles</td> </tr> <tr> <td>Extension</td> <td style="text-align: center;">72°C</td> <td style="text-align: center;">30 sec</td> </tr> <tr> <td>Detection</td> <td></td> <td style="text-align: center;">Scan</td> <td></td> </tr> <tr> <td>Final extension</td> <td style="text-align: center;">65°C</td> <td style="text-align: center;">5 min</td> <td style="text-align: center;">1 cycle</td> </tr> <tr> <td>Melting</td> <td style="text-align: center;">65-95°C</td> <td style="text-align: center;">1 sec</td> <td style="text-align: center;">-</td> </tr> </tbody> </table> <p>5. After the reaction, perform data analysis.</p>	Step	Temperature	Time	Cycles	Pre-denaturation	95°C	10 min	1 cycle	Denaturation	95°C	5 sec		Annealing	58°C	25 sec	40 cycles	Extension	72°C	30 sec	Detection		Scan		Final extension	65°C	5 min	1 cycle	Melting	65-95°C	1 sec	-
Step	Temperature	Time	Cycles																														
Pre-denaturation	95°C	10 min	1 cycle																														
Denaturation	95°C	5 sec																															
Annealing	58°C	25 sec	40 cycles																														
Extension	72°C	30 sec																															
Detection		Scan																															
Final extension	65°C	5 min	1 cycle																														
Melting	65-95°C	1 sec	-																														