AccuTarget™ qPCR Screening Kit

[Cat. No.] Please refer to the **Ordering Information**

Introduction

AccuTarget™ qPCR Screening kit can quantify mRNA gene expression levels by screening the genes with intercalating dyes using real-time PCR. This product contains 92 genes including 84 primer sets and 8 reference genes in lyophilized form in a single plate. This product is divided into three standardized sizes (10X, 20X, 30X) and is convenient to use depending on experimental conditions. The primers were designed using accurate bioinformatics tools in accordance with the MIQE (Minimum Information for Publication of Quantitative Real-Time PCR Experiments) guidelines*. Each well of plate you order come as lyophilized primers (forward and reverse) with a patented stabilizer that maintains full activity for over one month at room temperature, and 2 years in the freezer. Simply use it by dissolving primers and suspending it to your qPCR plate.

* 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.

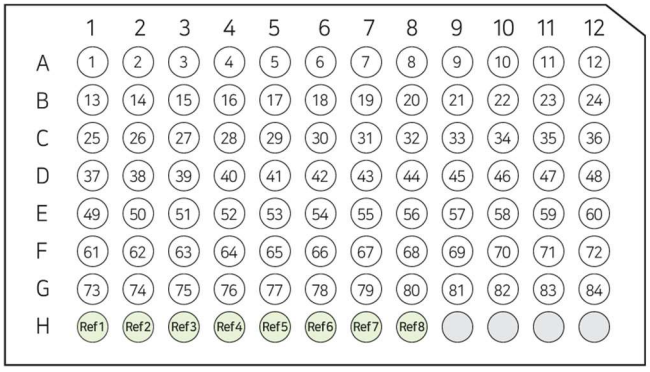


Figure 1. Example of qPCR plate layout.

Features & Benefits

- Professional design: Design the primers by considering all the necessary conditions for qPCR such as target specificity, Tm value, and the size of PCR products.
- Accurate, Cost-saving service: We provide primer sets validated by undergoing target-specific amplification test through meticulously designed algorithms and utilizing BLAST to reduce the time and cost caused by wrong designs.
- Convenience: Easy to use, according to the purpose of the experiment by providing standardized sizes (10X, 20X, 30X) with already pipetted contents for convenience.

Components

Components	Amount
AccuTarget™ qPCR Screening Kit (96 deep-well plate)	1 plate

Storage

- This product is lyophilized and shipped at ambient temperature.
- Store at ambient temperature (15-20°C) without direct sunlight for long term storage. Lyophilized primers are thermo-stable, but 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

A. Order details

Description		Cat. No.
AccuTarget™ Human qPCR Screening kit	10X	SH-0000-10
	20X	SH-0000-20
	30X	SH-0000-30
AccuTarget™ Mouse qPCR Screening kit	10X	SM-0000-10
	20X	SM-0000-20
	30X	SM-0000-30

*** Note:** Each of primer is supplied with 10X, 20X, 30X in the well of the plate.

B. Custom order

Description		Cat. No.
AccuTarget™ qPCR Screening Kit-Pathway Custom Kit (Modify the plate design with 1-5 genes)	10X	SPC-0001-10
	20X	SPC-0001-20
	30X	SPC-0001-30
AccuTarget™ qPCR Screening Kit-Whole Custom Kit (Modify the plate design into two more pathway)	10X	SWC-0001-10
	20X	SWC-0001-20
	30X	SWC-0001-30

*** Note:** Each of primer is supplied with 10X, 20X, 30X in the well of the plate.

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

1 Preparation of primers

1. Dissolve primers with nuclease-free water as described in following table.

Concentration*	Nuclease-free water	Final concentration
10X	50 µl	3 pmol/µl
20X	100 µl	3 pmol/µl
30X	150 µl	3 pmol/µl

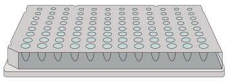
* **Note:** The concentrations (10X, 20X, 30X) are standards set based on the amount used when the reaction is performed with a final volume of 50 µl.

2. Spin down the plate and resuspend lyophilized primers with nuclease-free water completely by vortexing.

Example of Real-time PCR Protocol

- When performing real-time PCR, it is compatible with any other products, but we recommend BIONEER's 2X *GreenStar*™ qPCR Master Mix with following protocols.

2 Preparation of reaction mixture



3. Add template DNA, primers, 80X ROX dye (optional), nuclease-free water, and *AccuPower*® 2X *GreenStar*™ qPCR Master Mix (Cat. No. K-6251, not provided) into real-time PCR plate (not provided) to make a total volume of 20 µl or 50 µl (recommended).

- Preparation of reaction mixture

Components	20 µl reaction	50 µl reaction
AccuPower® 2X *GreenStar*™ qPCR Master Mix	10 µl	25 µl
Template DNA (5 pg-100 ng)	Variable	Variable
qPCR primer (3 pmol/µl)	2 µl	5 µl
(Optional) 80X ROX dye	0.25-2 µl	0.625-5 µl
Nuclease-free water	Variable	Variable
Total volume	20 µl	50 µl

* **Note:** 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 (Applied Biosystems), but not required for *Exicycler*™ 96 Real-Time PCR System (BIONEER), and CFX96 Real-Time PCR System (Bio-Rad).

4. Seal real-time PCR plate with adhesive optical sealing film (Cat. No. 3111-4110, not provided).

5. Mix the reaction mixture by vortexing, and briefly spin down.

3 Real-time PCR

6. Perform the reaction under the following conditions.

6-1. PCR condition (2-Step)

Step	Temperature	Time	Cycles
Pre-denaturation	95°C	1-15 min	1 cycle
Denaturation	95°C	3-15 sec	40-45 cycles
Annealing & Extension	58°C	5-30 sec	

* **Note:** Users can adjust the protocol according to their instrument and template DNA sequences to get optimal results.

6-2. PCR condition (3-Step)

Step	Temperature	Time	Cycles
Pre-denaturation	95°C	1-15 min	1 cycle
Denaturation	95°C	3-15 sec	
Annealing	58°C	5-30 sec	40-45 cycles
Extension	72°C	30 sec	

7. After the reaction is completed, analyze the results.