

## **iPS Efficiency Check qPCR Primer Set**

Catalog No. Amount Lot Number

632010 50 rxns Specified on product label.

### **Description**

The iPS Efficiency Check qPCR Primer Set provides primers for quantitative real-time PCR expression analysis of four senescence markers (Arf, Ink4a, p21 and p53) and one housekeeping gene (beta-Actin). High expression of these markers in target cells is known to be a barrier to iPS cell generation. Consequently, the expression levels of these genes can be used to determine a target cell's reprogrammability, and whether siRNA or knockdown construct(s) are required to enhance the efficiency of iPS cell generation.

### **Package Contents**

- 50 μl Murine Arf Primer Mix (10 μM each)
- 50 μl Murine Ink4a Primer Mix (10 μM each)
- 50 μ1 Murine p21 Primer Mix (10 μM each)
- 50 μl Murine p53 Primer Mix (10 μM each)
- 50 μ1 Murine beta-Actin Control Primer Mix (10 μM each)
- 3 tubes EASY Dilution Buffer (1X; 1 ml/tube)

### **Storage Conditions**

Store at –20°C.

### **Shelf Life**

• 1 year from date of receipt under proper storage conditions

### **Shipping Conditions**

• Dry ice  $(-70^{\circ}\text{C})$ 

#### **Product Documents**

Documents for our products are available for download at <u>takarabio.com/manuals</u> The following documents apply to this product:

• iPS Efficiency Check qPCR Protocol

### **Quality Control Data**

First-strand cDNA was synthesized from mouse embryonic fibroblast (MEF) total RNA using SMART® MMLV Reverse Transcriptase (Cat. No. 639522) and an oligo(dT) primer. The resulting first-strand cDNA was then subjected to real time PCR with TB Green® Advantage® qPCR Premix (Cat. No. 639676) and each primer pair in the iPS Efficiency Check qPCR Primer Set. The resulting standard curves yielded  $R^2$  values  $\geq$ 0.99, amplification efficiencies between 90–110%, and dissociation curves with single peaks. The no template controls (NTCs) gave either no signal or Ct values >35.

Amplicons of the following sizes were observed:

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Primer Mix	<b>Amplicon Size</b>
Arf	67 bp
Ink4a	59 bp
p21	140 bp
p53	109 bp
beta-Actin	151 bp

It is certified that this product meets the above specifications, as reviewed and approved by the Quality Department.

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