

PDCD1 Knockout 293T Cell Line, Homozygous

Catalog No.: RM01933

Basic Information

Catalog No.

RM01933

Category

Cell Line

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

PDCD1

Species

Human

Gene ID

5133


Swiss Prot

Q15116

Synonyms

CD279; PD-1; PD1; SLEB2; hPD-1; hPD-I; hSLE1

Contact

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Background

This gene encodes a cell surface membrane protein of the immunoglobulin superfamily. This protein is expressed in pro-B-cells and is thought to play a role in their differentiation. In mice, expression of this gene is induced in the thymus when anti-CD3 antibodies are injected and large numbers of thymocytes undergo apoptosis. Mice deficient for this gene bred on a BALB/c background developed dilated cardiomyopathy and died from congestive heart failure. These studies suggest that this gene product may also be important in T cell function and contribute to the prevention of autoimmune diseases. [provided by RefSeq, Jul 2008]

Product Information

Description

PDCD1 Knockout 293T Cell Line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:131bp deletion in exon2

Allele-2:131bp deletion in exon2

Mammalian cells such as human, rat and mouse cells are normally diploid with two alleles.

Homozygote: both alleles were knocked out, mRNA has no signal, no expression of proteins.

Heterozygote: only one allele was knocked out, the mRNA transcript levels was decreased compared to wild type, and the protein expression levels was also lower than that of the wild type.

Packaging

1 vial parental cell line and 1 vial knockout cell line

Shipping Conditions

Dry ice

Amount

1~5x10⁶ cells/vial

Storage

Stored in liquid nitrogen for a long time less than -130°C. Minimizing freeze-thaw cycles.

Protocol

Upon arrival, it should be maintained in DMEM medium with 10%(v/v) fetal bovine serum and 100U penicillin-streptomycin, at 37°C with 5% CO₂ condition.

1. Thaw the vial in 37°C water bath, and shake it to melt as soon as possible.
2. Transfer the cell suspension to a 15mL conical tube with pre-warmed 5mL complete medium and centrifuge 1000rpm for approximately 5 minutes at room temperature.
3. Remove and discard the supernatant.
4. Resuspend the cell pellet with 1mL pre-warmed complete medium and seed in 10cm dish.
5. Add 8-10mL of complete medium.
6. Incubate the culture at 37°C incubator with 5% CO₂.
7. A subcultivation ratio of 1:2-1:4 is recommended.

Sequencing data

WT CAGCTTCTCCAACA*****GGGCGTGACTTCCA
Mut CAGCTTCTCCAACA***Deletion***GGGCGTGACTTCCA
Allele-1: 131bp deletion in exon2
WT CAGCTTCTCCAACA*****GGGCGTGACTTCCA
Mut CAGCTTCTCCAACA***Deletion***GGGCGTGACTTCCA
Allele-2: 131bp deletion in exon2

Genome sequence analysis of PCR products from parental (WT) and PD-1 knockout (KO) 293T cells, using sanger sequencing.