

PPARA Knockout 293T Cell Line, Homozygous

Catalog No.: RM02120

Basic Information

Catalog No.

RM02120

Category

Cell Line

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

PPARA

Species

Human

Gene ID

5465

Swiss Prot

Q07869

Synonyms

NR1C1; PPAR; PPARalpha; hPPAR

Contact

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Background

Peroxisome proliferators include hypolipidemic drugs, herbicides, leukotriene antagonists, and plasticizers; this term arises because they induce an increase in the size and number of peroxisomes. Peroxisomes are subcellular organelles found in plants and animals that contain enzymes for respiration and for cholesterol and lipid metabolism. The action of peroxisome proliferators is thought to be mediated via specific receptors, called PPARs, which belong to the steroid hormone receptor superfamily. PPARs affect the expression of target genes involved in cell proliferation, cell differentiation and in immune and inflammation responses. Three closely related subtypes (alpha, beta/delta, and gamma) have been identified. This gene encodes the subtype PPAR-alpha, which is a nuclear transcription factor. Multiple alternatively spliced transcript variants have been described for this gene, although the full-length nature of only two has been determined. [provided by RefSeq, Jul 2008]

Product Information

Description

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

Allele-1:71bp deletion in exon2

Allele-2:71bp 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 GCCCTCCTCGGTG*****CGGGGACAAGGCCT
Mut GCCCTCCTCGGTG***Deletion***CGGGGACAAGGCCT
Allele-1: 71bp deletion in exon2

WT GCCCTCCTCGGTG*****CGGGGACAAGGCCT
Mut GCCCTCCTCGGTG***Deletion***CGGGGACAAGGCCT
Allele-2: 71bp deletion in exon2

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