

PPARG Knockout 293T Cell Line, Homozygous

Catalog No.: RM01826

Basic Information

Catalog No.

RM01826

Category

Cell Line

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

PPARG

Species

Human

Gene ID

5468

Swiss Prot

P37231

Synonyms

CIMT1; GLM1; NR1C3; PPARG1; PPARG2; PPARGgamma

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Background

This gene encodes a member of the peroxisome proliferator-activated receptor (PPAR) subfamily of nuclear receptors. PPARs form heterodimers with retinoid X receptors (RXRs) and these heterodimers regulate transcription of various genes. Three subtypes of PPARs are known: PPAR-alpha, PPAR-delta, and PPAR-gamma. The protein encoded by this gene is PPAR-gamma and is a regulator of adipocyte differentiation. Additionally, PPAR-gamma has been implicated in the pathology of numerous diseases including obesity, diabetes, atherosclerosis and cancer. Alternatively spliced transcript variants that encode different isoforms have been described.

Product Information

Description

PPARG Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:77bp deletion in exon1

Allele-2:77bp deletion in exon1

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 TGGATCTCTCCGTA*****TGGATCTCTCCGTA
Mut TGGATCTCTCCGTA***Deletion***TGGATCTCTCCGTA
Allele-1: 77bp deletion in exon1
WT TGGATCTCTCCGTA*****TGGATCTCTCCGTA
Mut TGGATCTCTCCGTA***Deletion***TGGATCTCTCCGTA
Allele-2: 77bp deletion in exon1

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