

GDF3 Knockout 293T Cell Line, Homozygous

Catalog No.: RM02693

Basic Information

Catalog No.

RM02693

Category

Cell Line

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

GDF3

Species

Human

Gene ID

9573

Swiss Prot

Q9NR23

Synonyms

KFS3; MCOP7; MCOPCB6; GDF3

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Background

This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate each subunit of the disulfide-linked homodimer. This protein plays a role ocular and skeletal development. Mutations in this gene are associated with microphthalmia, coloboma, and skeletal abnormalities in human patients.

Product Information

Description

GDF3 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:82bp deletion in exon1

Allele-2:82bp 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 ATTTCTGGGCTTAG*****CACTGGGGTCTCCC
Mut ATTTCTGGGCTTAG***Deletion***CACTGGGGTCTCCC
Allele-1: 82bp deletion in exon1

Genome sequence analysis of PCR products from parental (WT) and GDF3 knockout (KO) 293T cells, using sanger sequencing.

WT ATTTCTGGGCTTAG*****CACTGGGGTCTCCC
Mut ATTTCTGGGCTTAG***Deletion***CACTGGGGTCTCCC
Allele-2: 82bp deletion in exon1