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GDF3 Knockout 293T Cell Line, Homozygous

Catalog No.: RM02693

Basic Information

Catalog No.
RM02693

Category
Cell Line

Parental Cell line
293T

Genotype
Knockout

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.

Gene Information

Gene Symbol
GDF3

Species
Human

Gene ID
9573

Swiss Prot
Q9NR23

Synonyms
KFS3; MCOP7; MCOPCB6; GDF3

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
1~5x10^6 cells/vial.

Storage
Store at -20℃

Protocol
Upon arrival, it should be maintained in DMEM medium with 10%(v/v) fetal bovine serum and 100U penicillin-streptomycin, at 37℃ with 5% CO_2 condition.
1. Thaw the vial in 37℃ 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℃ incubator with 5% CO_2.
7. A subcultivation ratio of 1:2-1:4 is recommended.

Contact

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Sequencing data

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

WT    ATTTCTGGGCTTAG**********CACTGGGGTCTCCC
Mut   ATTTCTGGGCTTAG***Deletion***CACTGGGGTCTCCC
Allele-2:   82bp deletion in exon1
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Genome sequence analysis of PCR products from parental (WT) and GDF3 knockout (KO) 293T cells, using sanger sequencing.