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SMAD5 Knockout 293T Cell Line, Homozygous

Catalog No.: RM01891

Basic Information

Catalog No.
RM01891

Category
Cell Line

Parental Cell line
293T

Genotype
Knockout

Background

The protein encoded by this gene is involved in the transforming growth factor beta signaling pathway that results in an inhibition of the proliferation of hematopoietic progenitor cells. The encoded protein is activated by bone morphogenetic proteins type 1 receptor kinase, and may be involved in cancer. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2014]

Gene Information

Gene Symbol
SMAD5

Species
Human

Gene ID
4090

Swiss Prot
Q99717

Synonyms
DWFC; JV5-1; MADH5

Product Information

Description
SMAD5 Knockout 293T Cell Line is engineered from 293T cell line with Gene-Editing Technology.
Allele-1:53bp deletion in exon1
Allele-2:53bp 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    TTTAGATGGACGCC**************CGCTGGCCGGATTT
Mut   TTTAGATGGACGCC***Deletion***CGCTGGCCGGATTT
Allele-1：53bp deletion in exon1

WT    TTTAGATGGACGCC**************CGCTGGCCGGATTT
Mut   TTTAGATGGACGCC***Deletion***CGCTGGCCGGATTT
Allele-2：53bp deletion in exon1
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Genome sequence analysis of PCR products from parental (WT) and SMAD5 knockout (KO) 293T cells, using sanger sequencing.