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SMAD3 Knockout 293T Cell Line, Homozygous

Catalog No.: RM01816 1 Publications

Basic Information

Catalog No.
RM01816

Category
Cell Line

Parental Cell line
293T

Genotype
Knockout

Gene Information

Gene Symbol
SMAD3

Species
Human

Gene ID
4088

Swiss Prot
P84022

Synonyms
HSPC193; HsT17436; JV15-2; LDS1C; LDS3; MADH3

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Background

The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the Drosophila gene 'mothers against decapentaplegic' (Mad) and the C. elegans gene Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein functions as a transcriptional modulator activated by transforming growth factor-beta and is thought to play a role in the regulation of carcinogenesis.

Product Information

Description
SMAD3 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.
Allele-1:68bp deletion in exon3
Allele-2:68bp deletion in exon3
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
Stored in liquid nitrogen for a long time less than -130℃. 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℃ 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.

Sequencing data

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WT     GCTGAACCAGCGCG**************GAGCGCTTCTGCCT
Mut    GCTGAACCAGCGCG***Deletion***GAGCGCTTCTGCCT
Allele-1：68bp deletion  in exon3
WT     GCTGAACCAGCGCG**************GAGCGCTTCTGCCT
Mut    GCTGAACCAGCGCG***Deletion***GAGCGCTTCTGCCT
Allele-2：68bp deletion  in exon3
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Genome sequence analysis of PCR products from parental (WT) and SMAD3 knockout (KO) 293T cells, using sanger sequencing.