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FN1 Knockout U-87 MG Cell Line, Homozygous

Catalog No.: RM02734

Basic Information

Catalog No.
RM02734

Category
Cell Line

Parental Cell line
U-87 MG

Genotype
Knockout

Gene Information

Gene Symbol
FN1

Species
Human

Gene ID
2335

Swiss Prot
P02751

Synonyms
FN; CIG; FNZ; MSF; ED-B; FINC; GFND; LETS; GFND2; SMDCF; Fibronectin

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Background

This gene encodes fibronectin, a glycoprotein present in a soluble dimeric form in plasma, and in a dimeric or multimeric form at the cell surface and in extracellular matrix. The encoded preproprotein is proteolytically processed to generate the mature protein. Fibronectin is involved in cell adhesion and migration processes including embryogenesis, wound healing, blood coagulation, host defense, and metastasis. The gene has three regions subject to alternative splicing, with the potential to produce 20 different transcript variants, at least one of which encodes an isoform that undergoes proteolytic processing. The full-length nature of some variants has not been determined.

Product Information

Description
FN1 Knockout cell line is engineered from U-87 MG cell line with Gene-Editing Technology.
Allele-1:1bp deletion in exon3
Allele-2:61bp 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   TGGGAACACTTACC**********AGTGGGTGACACTT
Mut  TGGGAACACTTACC***Deletion***AGTGGGTGACACTT
AIlele-1:   1bp deletion in exon3

WT   CTGGGAACACTTAC**********GGGCTGGGCGAGG
Mut  CTGGGAACACTTAC***Deletion***GGGCTGGGCGAGG
AIlele-2:   61bp deletion in exon3
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Genome sequence analysis of PCR products from parental (WT) and FN1 knockout (KO) U-87 MG cells, using sanger sequencing.