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TXNIP Knockout HuH-7 Cell Line, Homozygous

Catalog No.: RM02504

Basic Information

Catalog No.
RM02504

Category
Cell Line

Parental Cell line
HuH-7

Genotype
Knockout

Gene Information

Gene Symbol
TXNIP

Species
Human

Gene ID
10628

Swiss Prot
Q9H3M7

Synonyms
ARRDC6; EST01027; HHCPA78; THIF; VDUP1

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Background

This gene encodes a thioredoxin-binding protein that is a member of the alpha arrestin protein family. Thioredoxin is a thiol-oxidoreductase that is a major regulator of cellular redox signaling which protects cells from oxidative stress. This protein inhibits the antioxidative function of thioredoxin resulting in the accumulation of reactive oxygen species and cellular stress. This protein also functions as a regulator of cellular metabolism and of endoplasmic reticulum (ER) stress. This protein may also function as a tumor suppressor. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015]

Product Information

Description
TXNIP Knockout HuH-7 Cell Line knockout is engineered from HuH-7 cell line with Gene-Editing Technology.
Allele-1:76bp deletion in exon2
Allele-2:76bp deletion in exon2
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

WT TATGGGTGTGTAGA**********CTGGTGGATGTCAA
Mut TATGGGTGTGTAGA***Deletion***CTGGTGGATGTCAA
Allele-1: 76bp deletion in exon2

WT TATGGGTGTGTAGA**********CTGGTGGATGTCAA
Mut TATGGGTGTGTAGA***Deletion***CTGGTGGATGTCAA
Allele-2: 76bp deletion in exon2

Genome sequence analysis of PCR products from parental (WT) and TXNIP knockout (KO) Huh7 cells, using sanger sequencing.