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MLKL Knockout HeLa Cell Line, Homozygous

Catalog No.: RM01861

Basic Information

Catalog No.
RM01861

Category
Cell Line

Parental Cell line
HeLa

Genotype
Knockout

Background

This gene belongs to the protein kinase superfamily. The encoded protein contains a protein kinase-like domain; however, is thought to be inactive because it lacks several residues required for activity. This protein plays a critical role in tumor necrosis factor (TNF)-induced necroptosis, a programmed cell death process, via interaction with receptor-interacting protein 3 (RIP3), which is a key signaling molecule in necroptosis pathway. Inhibitor studies and knockdown of this gene inhibited TNF-induced necrosis. High levels of this protein and RIP3 are associated with inflammatory bowel disease in children. Alternatively spliced transcript variants have been described for this gene. [provided by RefSeq, Sep 2015]

Gene Information

Gene Symbol
MLKL

Species
Human

Gene ID
197259

Swiss Prot
Q8NB16

Synonyms
hMLKL

Product Information

Description
MLKL Knockout HeLa Cell Line is engineered from HeLa cell line with Gene-Editing Technology.
Allele-1:169bp deletion in exon1
Allele-2:169bp 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
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.

Contact

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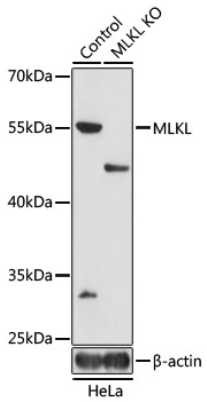
Sequencing data

WT CTGAGAAGTTAACC**********TTCAGGTTGAGCAA
Mut CTGAGAAGTTAACC***Deletion***TTCAGGTTGAGCAA
Allele-1: 169bp deletion in exon1

WT CTGAGAAGTTAACC**********TTCAGGTTGAGCAA
Mut CTGAGAAGTTAACC***Deletion***TTCAGGTTGAGCAA
Allele-2: 169bp deletion in exon1

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

WB data



Western blot analysis of extracts from parental (Control) and MLKL Knockout HeLa Cell Line, using MLKL antibody at 1:1000 dilution.