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IL1B Knockout A549 Cell Line, Homozygous

Catalog No.: RM02641

Basic Information

Catalog No.
RM02641

Category
Cell Line

Parental Cell line
A549

Genotype
Knockout

Gene Information

Gene Symbol
IL1B

Species
Human

Gene ID
3553

Swiss Prot
P01584

Synonyms
IL-1; IL1-BETA; IL1F2

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Background

The protein encoded by this gene is a member of the interleukin 1 cytokine family. This cytokine is produced by activated macrophages as a proprotein, which is proteolytically processed to its active form by caspase 1 (CASP1/ICE). This cytokine is an important mediator of the inflammatory response, and is involved in a variety of cellular activities, including cell proliferation, differentiation, and apoptosis. The induction of cyclooxygenase-2 (PTGS2/COX2) by this cytokine in the central nervous system (CNS) is found to contribute to inflammatory pain hypersensitivity. This gene and eight other interleukin 1 family genes form a cytokine gene cluster on chromosome 2. [provided by RefSeq, Jul 2008]

Product Information

Description
IL1B Knockout A549 Cell Line is engineered from A549 cell line with Gene-Editing technology.
Allele-1:59bp deletion in exon3
Allele-2:59bp 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
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.

Sequencing data

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WT    GGCGGCATCCAGCT**********CCATGGACAAGCT
Mut   GGCGGCATCCAGCT***Deletion***CCATGGACAAGCT
Allele-1:   59bp deletion in exon3

WT    GGCGGCATCCAGCT**********CCATGGACAAGCT
Mut   GGCGGCATCCAGCT***Deletion***CCATGGACAAGCT
Allele-2:   59bp deletion in exon3
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Genome sequence analysis of PCR products from parental (WT) and IL1B knockout (KO) A549 cells, using sanger sequencing.