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IL1B Knockout A549 Cell Lysate, Homozygous

Catalog No.: RM02783

Basic Information

Catalog No.
RM02783

Category
Cell Lysate

Parental Cell line
A549

Genotype
Knockout

Gene Information

Gene Symbol
IL1B

Species
Human

Gene ID
3553

Swiss Prot
P01584

Synonyms
IL-1; IL1F2; IL1beta; IL1-BETA; IL1β

Contact

400-999-6126

cn.market@abclonal.com.cn

www.abclonal.com.cn

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. Similarly, IL-1B has been implicated in human osteoarthritis pathogenesis. Patients with severe Coronavirus Disease 2019 (COVID-19) present elevated levels of pro-inflammatory cytokines such as IL-1B in bronchial alveolar lavage fluid samples. The lung damage induced by the Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is to a large extent, a result of the inflammatory response promoted by cytokines such as IL-1B. This gene and eight other interleukin 1 family genes form a cytokine gene cluster on chromosome 2.

Product Information

Description
IL1B Knockout 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 Lysate and 1 vial knockout cell Lysate

Shipping Conditions
4℃

Amount
50μL, 2μg/μL.

Storage
Store at -20℃

Protocol
To be used as WB control. Lysate is supplied in 1× SDS sample buffer (2% SDS, 60 mM Tris-HCl pH 6.8, 10% Glycerol, 0.02% Bromophenol blue, 60 mM beta-mercaptoethanol). Lysate should be boiled for 3 - 5 minutes before loading onto gel.

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.