

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

SynonymsIL-1; IL1F2; IL1beta; IL1-BETA; IL1 β

Contact

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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. 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°C

Amount50 μ L, 2 μ g/ μ L.**Storage**

Lysate is stable for 12 months when stored at -20°C. Minimizing freeze-thaw cycles.

Protocol

To be used as WB control. Lysate is supplied in 1 \times 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

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

Genome sequence analysis of PCR products from parental (WT) and IL1B knockout (KO) A549 cells, using sanger sequencing.

WT GGCGGCATCCAGCT*****CCATGGACAAGCT
Mut GGCGGCATCCAGCT***Deletion***CCATGGACAAGCT
Allele-2: 59bp deletion in exon3