

Recombinant Human IL1B protein, low endotoxin

Cat. No. IL1B-39H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL1B (Ala117-Ser269) protein (low endotoxin) carried no tag and was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	Ala117-Ser269
Description	Interleukin-1 beta (IL-1β) is also known as catabolin, is a cytokine protein that in humans is encoded by the IL1B gene. IL-1β precursor is cleaved by caspase 1 (interleukin 1 beta convertase). Cytosolic thiol protease cleaves the product to form mature IL-1 beta. IL1β are structurally related polypeptides that share approximately 21% amino acid (aa) identity in human. Both proteins are produced by a wide variety of cells in response to inflammatory agents, infections, or microbial endotoxins. While IL1α and IL1β are regulated independently, they bind to the same receptor and exert identical biological effects. IL-1β 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

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contribute to inflammatory pain hypersensitivity. This gene and eight other interleukin 1 family genes form a cytokine gene cluster on chromosome 2.

Predicted N Terminal Ala117

Form Lyophilized from 0.22 µm filtered solution in PBS, pH7.4, 10% trehalose.

Molecular Mass The protein has a calculated MW of 17.5 kDa. The protein migrates as 18 kDa under reducing (R) condition (SDS-PAGE).

Endotoxin Less than 0.1 EU per µg by the LAL method.

Purity >95% as determined by SDS-PAGE.

Storage

For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- 20 to -70 centigrade for 12 months in lyophilized state;
- 70 centigrade for 3 months under sterile conditions after reconstitution.

Reconstitution

It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

Gene Name IL1B

Official Symbol IL1B

Synonyms IL1B; interleukin 1, beta; interleukin-1 beta; IL 1B; IL1 BETA; IL1F2; IL-1 beta;

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catabolin; preinterleukin 1 beta; pro-interleukin-1-beta; IL-1; IL1-BETA

Gene ID 3553

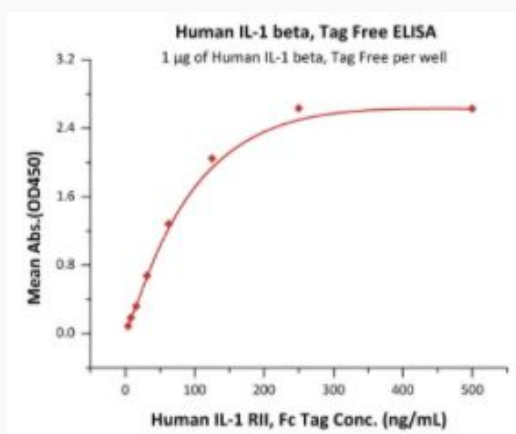
mRNA Refseq NM_000576

Protein Refseq NP_000567

MIM 147720

UniProt ID P01584

**Bioactivity-ELISA of
IL1B-39H**



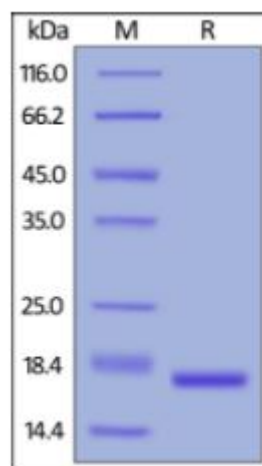
Immobilized Human IL-1 beta, Tag Free at 10 µg/mL (100 µL/well) can bind Human IL-1 RII, Fc Tag with a linear range of 4-125 ng/mL (QC tested).

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SDS-PAGE of IL1B-39H



Human IL-1 beta, Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.