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

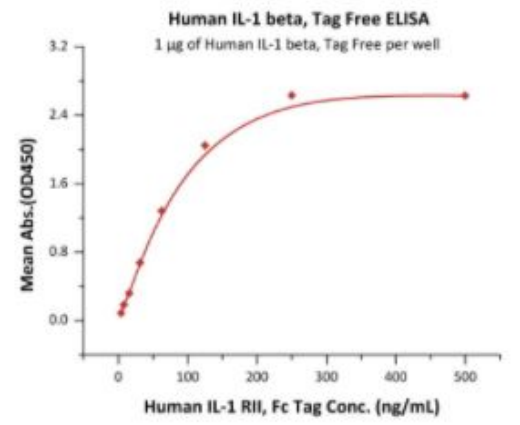
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	contribute to inflammatory pain hypersensitivity. This gene and eight other interleukin 1 family genes form a cytokine gene cluster on chromosome 2.
Predicted N Terminal	Ala117
Form	Lyophilized from 0.22 μm filtered solution in PBS, pH7.4, 10% trehalose.
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℃ before opening to recover the entire contents.

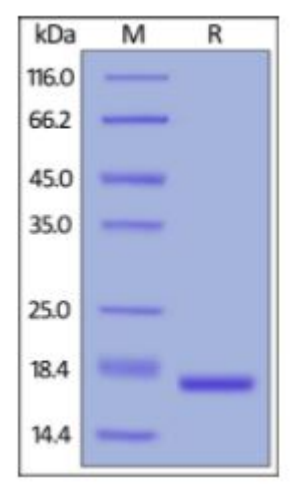
GENE INFORMATION

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%.

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