Catalog # ILB-C51H3



#### Synonym

IL1B,IL-1BETA,IL1F2,IL-1 $\beta$ 

#### Source

Cynomolgus IL-1 beta, His Tag(ILB-C51H3) is expressed from E. coli cells. It contains AA Ala 117 - Ser 268 (Accession # <u>P79182-1</u>). Predicted N-terminus: Met

## **Molecular Characterization**

IL-1 beta(Ala 117 - Ser 268) Poly-his P79182-1

This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 19.2 kDa. The protein migrates as 20-22 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE).

## Endotoxin

Less than 1.0 EU per  $\mu g$  by the LAL method.

## Purity

>95% as determined by SDS-PAGE.

#### Formulation

Lyophilized from 0.22  $\mu m$  filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

#### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

#### Storage

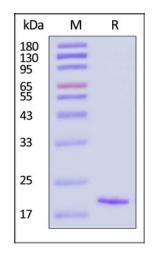
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

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

## **SDS-PAGE**



Cynomolgus IL-1 beta, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

## Background

Interleukin-1 beta (IL-1 $\beta$ ) is also known as catabolin, is a cytokine protein that in humans is encoded by the IL1B gene. IL-1 $\beta$  precursor is cleaved by caspase 1 (interleukin 1 beta convertase). Cytosolic thiol protease cleaves the product to form mature IL-1 beta. IL1 $\beta$  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  $IL1\alpha$  and  $IL1\beta$  are regulated independently, they bind to the same receptor and exert



# Cynomolgus IL-1 beta / IL-1F2 Protein, His Tag

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identical biological effects.

IL-1 $\beta$  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.

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