

# Human IL-1 Beta/IL-1F2 Protein

Cat. No. IL1-HE40B

## Description

<b>Source</b>	Recombinant Human IL-1 Beta/IL-1F2 Protein is expressed from E.coli with His tag and Avi tag at the C-Terminus. It contains Ala117-Ser269.
<b>Accession</b>	P01584
<b>Molecular Weight</b>	The protein has a predicted MW of 20.1 kDa same as Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by SEC-HPLC

## Formulation and Storage

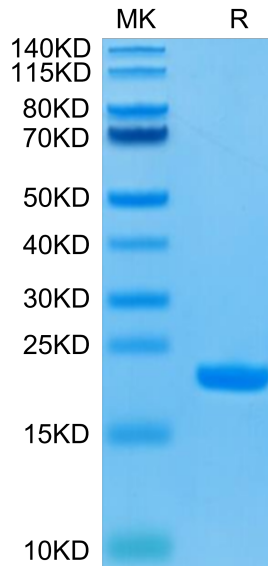
<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

Interleukin-1 beta (IL-1 $\beta$ ) is induced by inflammatory signals in a broad number of immune cell types. IL-1 $\beta$  (and IL-18) are the only cytokines which are processed by caspase-1 after inflammasome-mediated activation. IL-1 signaling activates innate immune cells including antigen presenting cells, and drives polarization of CD4 T cells towards T helper type (Th) 1 and Th17 cells.

## Assay Data

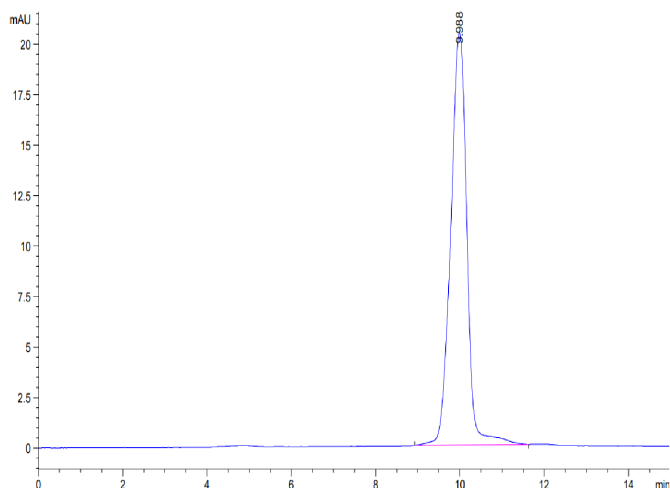
### Bis-Tris PAGE



Human IL-1 Beta on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC

Assay Data

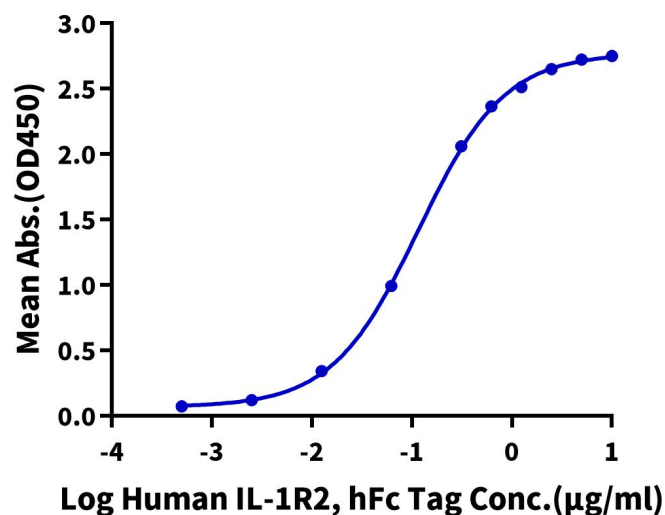


The purity of Human IL-1 Beta is greater than 95% as determined by SEC-HPLC.

ELISA Data

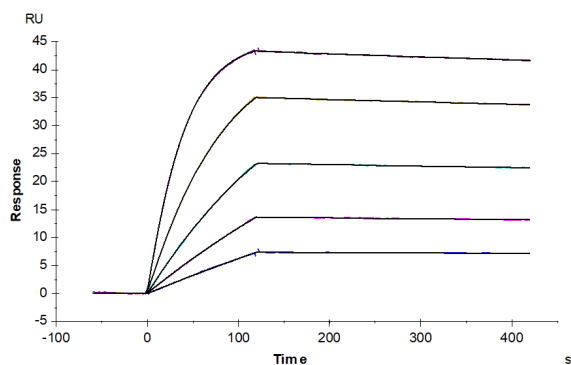
**Human IL-1 Beta, His Tag ELISA**

0.5µg Human IL-1 Beta, His Tag Per Well



Immobilized Human IL-1 Beta, His Tag at 5µg/ml (100µl/Well) on the plate. Dose response curve for Human IL-1R2, hFc Tag with the EC50 of 0.12µg/ml determined by ELISA (QC Test).

SPR Data



Human IL-1R2, hFc Tag captured on CM5 Chip via Protein A can bind Human IL-1 Beta, His Tag with an affinity constant of 0.88 nM as determined in SPR assay (Biacore T200).