

RP00454

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

Catalog No.: RP00454 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
<I>E. coli</I>	3553	P01584

Tags

C-His&Avi

Synonyms

Interleukin-1 beta; IL-1 beta; IL1F2; IL1B; IL-1BETA; IL1F2; IL-1β; IL-1 beta; IL-1B ;Interleukin-1 β; IL-1 β; IL-1β; IL-1 β

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE ; > 95% by SEC-HPLC

Endotoxin

< 1 EU/μg of the protein by LAL method

Formulation

Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

Interleukin-1 beta (IL-1β) is induced by inflammatory signals in a broad number of immune cell types. IL-1β (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.

Basic Information

Description

Recombinant Human IL-1 Beta/IL-1F2 Protein is produced by <I>E. coli</I> expression system. The target protein is expressed with sequence (Ala117-Ser269) of Human IL-1 Beta/IL-1F2 (Accession #P01584) fused with a C-His&Avi tag at the C-terminus.

Bio-Activity

Storage

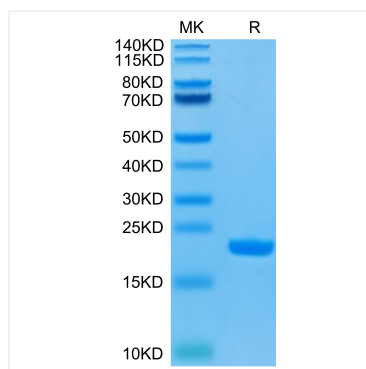
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Contact

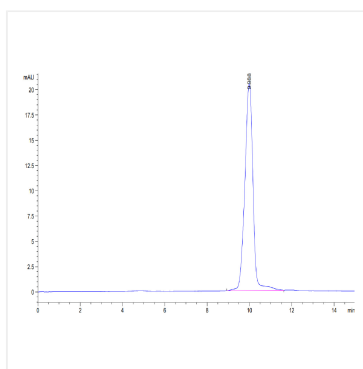


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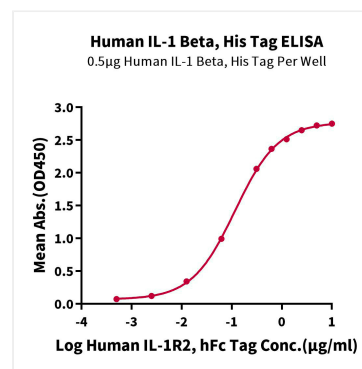
Validation Data



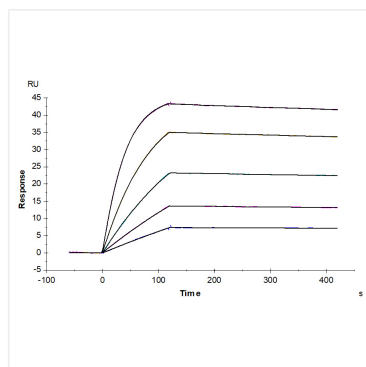
Human IL-1 Beta on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.



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



Immobilized Human IL-1 Beta, His Tag at 5 $\mu\text{g/mL}$ (100 $\mu\text{L/Well}$) on the plate. Dose response curve for Human IL-1R2, hFc Tag with the EC_{50} of 0.12 $\mu\text{g/mL}$ determined by ELISA (QC Test).



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).