Recombinant Rat IL-1 beta Protein

Catalog No.: RP01788

Sequence Information

Species
Rat

Gene ID
24494

Swiss Prot
Q5BKB0

Tags
C-His

Synonyms
IL-1F2;IL-1 beta,IL1B,IL-1BETA, IL1F2,IL-1β,il1b,IL1B

Product Information

Source
HEK293 cells

Purification
≥ 85 % as determined by SDS-PAGE.

Calculated MW
18.16 kDa

Observed MW
18-25 kDa

Endotoxin
< 1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

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 stablizer (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 (IL1 beta or IL1B) also known as catabolin, 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.

Basic Information

Description
Recombinant Rat IL-1 beta Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Val117-Ser268) of rat IL-1 beta (Accession #NP_113700.2) fused with a 6×His tag at the C-terminus.

Activity
Recombinant Rat IL-1 beta Protein stimulates cell proliferation of the D10.G4.1 mouse helper T cell line. The ED_{50} for this effect is 0.68-2.72 ng/mL, corresponding to a specific activity of 3.68×10^5~1.47×10^6 units/mg.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

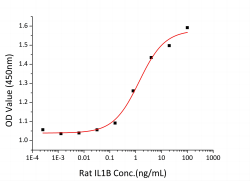
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

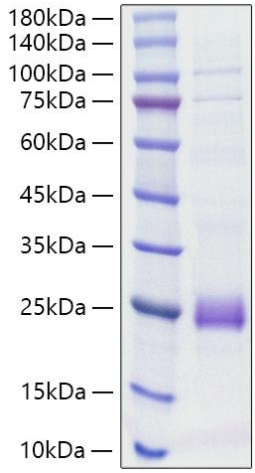
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Validation Data



Recombinant Rat IL-1 beta Protein stimulates cell proliferation of the D10.G4.1 mouse helper T cell line. The ED_{50} for this effect is 0.68-2.72 ng/mL, corresponding to a specific activity of 3.68×10^5~1.47×10^6 units/mg.



Recombinant Rat IL-1 beta Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.