



Recombinant Mouse IL-1 β
(Interleukin-1 beta)

Catalog Number: 200-68
Accession Number: O35228

Specifications and Uses:

Alternate Names: Catabolin, LAF, EP, LEM, MCF

Description:

Interleukin-1 beta (IL-1 β) is a proinflammatory cytokine produced in response to inflammatory agents by a variety of cells, including monocytes, macrophages, and dendritic cells (DCs). IL-1 β and IL-1 α are two distinct and independently regulated gene products, that comprise IL-1 and signal through the Type 1 IL-1 receptor (IL-1R1). Although IL-1 α is cell associated and IL-1 β is secreted, they have nearly identical biological activity in that they induce adhesion molecule expression on epithelial cells, control fever induction, and play a role in arthritis and septic shock. Signaling activated by the IL-1R1 promotes these activities through a MYD88 signaling pathway similar to those associated with Toll receptors. Recombinant mouse IL-1 β is a non-glycosylated protein, containing 152 amino acids, with a molecular weight of 17.4 kDa.

Source: *E.coli*

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation and Stability:

Recombinant mouse IL-1 β is lyophilized from 10 mM Na₂PO₄, pH 7.5.

Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

Reconstitution:

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/mL, which can be further diluted into other aqueous solutions.

Protein Content and Purity (typically \geq 97%) determined by:

HPLC, Reducing and Non-reducing SDS-PAGE, UV spectroscopy at 280 nm

Endotoxin Level:

Measured by kinetic LAL analysis and is typically \leq 1 EU/ μ g protein.

Biological Activity:

The activity is determined by the dose-dependent proliferation of mouse D10S cells and is typically less than 2 pg/mL.

AA Sequence:

VPIRQLHYR LRDEQQKSLV LSDPYELKAL HLNGQNINQQ VIFSMSFVQG EPSNDKIPVA LGLKGKNLYL
SCVMKDGTP T LQLESVDPKQ YPKKKMEKRF VFNKIEVKSK VEFESAEPN WYISTSQAEH KPVFLGNNSG
QDIIDFTMES VSS

THIS PRODUCT IS FOR RESEARCH USE ONLY AND IS NOT FOR USE IN HUMANS!

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