

Product: **Recombinant Mouse Interleukin-1 beta / IL-1 β**
Cat #: 300-312P
 Powder

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. Alternate names: Catabolin, LAF, EP, LEM, MCF
MW	Non-glycosylated protein, containing 152 amino acids, with a molecular weight of 17.4 kDa.
Physical Appearance	Sterile filtered white lyophilized (freeze-dried) powder.
Source	<i>E. coli</i>
Formulation	Recombinant mouse IL-1 β is lyophilized from 10 mM Na ₂ PO ₄ , pH 7.5.
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.
Stability	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.
Biological Activity	The activity is determined by the dose-dependent proliferation of mouse D10S cells and is typically less than 2 pg/mL.
Endotoxin Level	Measured by kinetic LAL analysis and is typically \leq 1 EU/ μ g protein.
AA Sequence	VPIRQLHYR LRDEQQKSLV LSDPYELKAL HLNQININQQ VIFSMSFVQG EPSNDKIPVA LGLKGNLYL SCVMKDGTP T LQLESVDPKQ YPKKKMEKRF VFNKIEVKSK VEFESAEFPN WYISTSQAEH KPVFLGNNSG QDIIDFTMES VSS

Purity greater than 97% determined by HPLC, Reducing and Non-reducing SDS-PAGE, UV spectroscopy at 280 nm.

Protein content determined by HPLC, Reducing and Non-reducing SDS-PAGE, UV spectroscopy at 280 nm.

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