

## IL-1 $\beta$ , Mouse

**Cat. No.:** Z02985-10

**Size:** 10.0 ug

**Synonyms:** Catabolin, Lymphocyte-activating factor (LAF), Endogenous Pyrogen (EP), Leukocyte Endogenous Mediator (LEM), Mononuclear Cell Factor (MCF)

### Description:

Interleukin-1 Beta (IL-1 $\beta$ ) is a proinflammatory cytokine produced in a variety of cells including monocytes, tissue macrophages, keratinocytes and other epithelial cells. Both IL-1 alpha and IL-1 beta binds to the same receptor and has similar if not identical biological properties. These cytokines have a broad range of activities including, stimulation of thymocyte proliferation, by inducing IL-2 release, B-cell maturation and proliferation, mitogenic FGF-like activity and the ability to stimulate the release of prostaglandin and collagenase from synovial cells. However, whereas IL-1 beta is a secreted cytokine, IL-1 alpha is predominantly a cell-associated cytokine.

Recombinant mouse Interleukin-1 Beta(rmIL-1 $\beta$ ) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 153 amino acids. A fully biologically active molecule, rmIL-1 $\beta$  is obtained by proprietary chromatographic techniques at GenScript, with an apparent molecular weight of 17.5kDa analyzed by reducing SDS-PAGE.

### Amino Acid Sequence:

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00001 MVPIRQLHYR LRDEQQKSLV LSDPYELKAL HLNQQNINQQ
00041 VIFSMSFVQG EPSNDKIPVA LGLKGNLYL SCVMKDGTPT
00081 LQLESVDPKQ YPKKKMEKRF VFNKIEVKSK VEFESAEPFN
00121 WYISTSQAEH KPVFLGNNSG QDIIDFTMES VSS
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**Source:** *E. coli*

**Species:** Mouse

**Biological Activity:** ED50<2.0 pg/ml, measured by the dose-dependent stimulation of mouse D10S cells, corresponding to a specific activity of > 5.0 $\times$  10<sup>8</sup>units/mg.

**Molecular Weight:** 17.5kDa, observed by reducing SDS-PAGE.

**Formulation:** Lyophilized after extensive dialysis against PBS.

**Reconstitution:** Reconstituted in ddH<sub>2</sub>O or PBS at 100  $\mu$ g/ml.

**Purity:** > 95% by SDS-PAGE and HPLC analyses.

**Endotoxin Level:** <0.2 EU/ $\mu$ g, determined by LAL method.

**Storage:** Lyophilized recombinant mouse Interleukin-1 Beta(rmIL-1 $\beta$ ) remains stable up to 6 months at lower than -70 $^{\circ}$ C from date of receipt. Upon reconstitution, rmIL-1 $\beta$  should be stable up to 2 weeks at 4 $^{\circ}$ C or up to 3 months at -20 $^{\circ}$ C.