

## IL-1 $\beta$ , Mouse(CHO-expressed)

**Cat. No.:** Z02988-10

**Size:** 10.0 ug

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

### Description:

Interleukin-1 (IL-1) is a family of cytokines that play a central role in the regulation of immune and inflammatory responses to infections or sterile insults. IL-1 $\alpha$  and IL-1 $\beta$  are the first two members discovered in this family, which are the products of distinct genes recognizing the same cell surface receptors. IL-1 $\alpha$  and IL-1 $\beta$  are structurally related polypeptides that show approximately 25% homology at the amino acid level. Both proteins are produced by a wide variety of cells in response to stimuli such as those produced by inflammatory agents, infections, or microbial endotoxins. The proteins are synthesized as 31 kDa precursors that are subsequently cleaved into proteins with molecular weights of approximately 17.5 kDa. The specific protease responsible for the processing of IL-1 $\beta$  is interleukin 1 $\beta$ -converting enzyme (ICE)/caspase-1. Mature human and mouse IL-1 $\beta$  share approximately 75% amino acid sequence identity where human IL-1 $\beta$  has been found to be active on murine cell lines.

GenScript Interleukin (IL)-1 $\beta$ , murine, produced in CHO cells, is a non-glycosylated polypeptide chain containing 152 amino acids and having a molecular mass of 17,400 Da.

### Amino Acid Sequence:

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00001 VPIRQLHYRL RDEQQKSLVL SDPYELKALH LNGQNINQQV
00041 IFSMSFVQGE PSNDKIPVAL GLKGKNLYLS CVMKDGTPTL
00081 QLESVDPKQY PKKKMEKRFV FNKIEVKSKV EFESAEPNW
00121 YISTSQAEHK PVFLGNNSGQ DIIDFTMESV SS
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**Source:** CHO

**Species:** Mouse

**Biological Activity:** ED<sub>50</sub> < 10 pg/ml, measured in a cell proliferation assay using D10S cells, corresponding to a specific activity of > 1 $\times$ 10<sup>8</sup> units/mg.

**Molecular Weight:** 17.4 kDa, observed by non-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% as analyzed by SDS-PAGE and HPLC.

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

**Storage:** Lyophilized recombinant Murine Interleukin 1 beta (IL-1 beta) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rIL-1beta should be stable up to 1 week at 4°C or up to 2 months at -20°C.