

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

Cat. No.: Z02988

## Product Introduction

<b>Species</b>	Mouse
<b>Protein Construction</b>	IL-1 $\beta$ (Val118-Ser269) Accession # P10749
<b>Purity</b>	> 95% as analyzed by SDS-PAGE > 95% as analyzed by HPLC
<b>Endotoxin Level</b>	< 0.2 EU/ $\mu$ g of protein by gel clotting method
<b>Biological Activity</b>	ED <sub>50</sub> < 10.0 pg/ml, measured in a cell proliferation assay using D10S cells, corresponding to a specific activity of > 1.0 $\times$ 10 <sup>8</sup> U/mg.
<b>Expression System</b>	CHO
<b>Apparent Molecular Weight</b>	~17.4 kDa, on SDS-PAGE under non-reducing conditions.
<b>Formulation</b>	Lyophilized after extensive dialysis against PBS.
<b>Reconstitution</b>	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH <sub>2</sub> O or PBS up to 100 $\mu$ g/ml.
<b>Storage &amp; Stability</b>	Upon receiving, this product remains stable for 6 months at lower than -70°C. Upon reconstitution, the product should be stable for 1 week at 4°C or for 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

## Background

**Target Background :** 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.

**Synonyms :** IL1B; IL-1; IL1-BETA; IL1F2; interleukin 1 beta; IL1beta

**For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.**

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