## IL-1 $\beta$, Rat

Cat. No.: Z03014

## Product Introduction

| Species | Rat |
| :---: | :---: |
| Protein Construction |  |
|  | IL-1 $\beta$ (Val117-Ser268) Accession \# Q63264 |
| Purity | >95\% as analyzed by SDS-PAGE |
|  | > 95\% as analyzed by HPLC |
| Endotoxin Level | $<0.2 \mathrm{EU} / \mathrm{\mu g}$ of protein by gel clotting method |
| Biological Activity | $E D_{50}<10.0 \mathrm{pg} / \mathrm{ml}$, measured by a cell proliferation assay using mouse D10S cells, corresponding to a specific activity of $>1.0 \times 10^{8}$ units $/ \mathrm{mg}$. |
| Expression System | E. coli |
| Apparent Molecular Weight | $\sim 17.3 \mathrm{kDa}$, on SDS-PAGE under reducing conditions. |
| Formulation | Lyophilized after extensive dialysis against PBS. |
| Reconstitution | It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in $\mathrm{ddH}_{2} \mathrm{O}$ up to $100 \mu \mathrm{~g} / \mathrm{ml}$. |
| Storage \& Stability | Upon receiving, this product remains stable for up to 6 months at lower than $-70^{\circ} \mathrm{C}$. Upon reconstitution, the product should be stable for up to 1 week at $4^{\circ} \mathrm{C}$ or up to 3 months at $20^{\circ} \mathrm{C}$. For long term storage it is recommended that a carrier protein (example $0.1 \% \mathrm{BSA}$ ) be added. Avoid repeated freeze-thaw cycles. |

## Background

Target Background : 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 bind to the same receptor and have 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.

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

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