



# Recombinant Rat IL-1 beta

20150227BB



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>R20-005S</b>
Size:	2 µg
Lot. No.:	According to product label

## Scientific Background

<b>Gene-ID (NCBI):</b>	24494
<b>Synonyms:</b>	Il1b

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 rat IL-1 $\beta$  is a 17.4 kDa protein containing 153 amino acid residues.

### Sequence

```
MVPIRQLHCR LRDEQQKCLV LSDPCELKAL HLNQNISQQ  
VVFMSFVQG ETSNDKIPVA LGLKGLNLYL SCVMKDGTP  
LQLESVDPKQ YPKKKMEKRF VFNKIEVKTK VEFESAQFPN  
WYISTSQAEH RPVFLGNSNG RDIVDFTMPEP VSS
```

### Database References

<b>Protein RefSeq:</b>	NP_113700
<b>Uniprot ID:</b>	Q5BKB0
<b>mRNA RefSeq:</b>	NM_031512

## Product Specifications

<b>Expressed in</b>	E. coli
<b>Purity</b>	> 98% by SDS-PAGE & HPLC analyses
<b>Endotoxin level</b>	< 0.1 ng /µg of protein (<1EU/µg).
<b>Formulation</b>	lyophilized
<b>Length (aa):</b>	153
<b>MW:</b>	17.4 kDa

**Biological Activity:** The ED50 was determined by the dose-dependent stimulation of murine D10S cells is  $\leq$  0.1 ng/ml, corresponding to a specific activity of  $\geq$  1 x 10<sup>7</sup> units/mg.



**AVOID REPEATED FREEZE AND THAW CYCLES!**