

## Recombinant Rat Interleukin-1 $\beta$ (IL-1 $\beta$ )

<b>CATALOG #:</b>	4130-10	10 $\mu$ g
	4130-50	50 $\mu$ g
	4130-1000	1 mg
<b>LOT #:</b>	_____	
<b>SOURCE:</b>	<i>E. coli</i>	
<b>PURITY:</b>	> 98% by SDS-PAGE and HPLC analysis Endotoxin level is <0.01 ng per $\mu$ g of rat IL-1 $\beta$ .	
<b>MOL. WEIGHT:</b>	17.3 kDa	
<b>FORMULATION:</b>	Sterile filtered and then lyophilized from 10 mM Sodium phosphate buffer, pH 7.5	

### RECONSTITUTION:

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1mg/ml. The reconstituted material should be aliquoted and frozen at -20°C for future use. It is recommended that a carrier protein (0.1 % HSA or BSA) be added for long term storage.

### STORAGE CONDITIONS:

The lyophilized IL-1 $\beta$  should be stored desiccated below 0°C. Reconstituted rat IL-1 $\beta$  should be stored at working aliquots at -20°C.

### DESCRIPTION:

IL-1beta is a proinflammatory cytokine produced in a variety of cells including monocytes, tissue macrophages, keratinocytes and other epithelial cells. Both IL-1alpha and IL-1beta binds to the same receptor and has similar biological properties. These cytokines have a broad range of activities including, stimulation of thymocyte proliferation, B-cell maturation and proliferation, mitogenic FGF-like activity and stimulation of the release of prostaglandin and collagenase from synovial cells. However, whereas IL-1beta is a secreted cytokine, IL-1alpha is predominantly a cell-associated cytokine. Recombinant rat IL-1beta is a 17.4 kDa protein containing 153 amino acid residues.

### BIOLOGICAL ACTIVITY:

The ED<sub>50</sub> as determined by the dose-dependent stimulation of murine D10S cells is  $\leq$  1 ng/ml.

### AA Sequence:

VPIRQLHCRLRDEQQKCLVLSDPCELKALHLNGQNISQQVVFMSFSVQGETSNDKIPVALGLK  
GLNLYLSCVMKDGTPTLQLESVDPKQYPKKMEKRFVFNKIEVKTKVEFESAQFPNWIYSTS  
QARPVFLGNSNGRDIVDFTEPVS

**NOTE:** For Research Use Only. Not for use in diagnostic or therapeutic procedures.

### RELATED PRODUCTS:

#### Apoptosis Detection Kits & Reagents

- Annexin V Kits & Bulk Reagents
- Caspase Assay Kits & Reagents
- Mitochondrial Apoptosis Kits & Reagents
- Nuclear Apoptosis Kits & Reagents
- Apoptosis Inducers and Set
- Apoptosis siRNA Vectors

#### Cell Fractionation System

- Mitochondria/Cytosol Fractionation Kit
- Nuclear/Cytosol Fractionation Kit
- Membrane Protein Extraction Kit
- Cytosol/Particulate Rapid Separation Kit
- Mammalian Cell Extraction Kit
- FractionPREP Fractionation System

#### Cell Proliferation & Senescence

- Quick Cell Proliferation Assay Kit
- Senescence Detection Kit
- High Throughput Apoptosis/Cell Viability Assay Kits
- LDH-Cytotoxicity Assay Kit
- Bioluminescence Cytotoxicity Assay Kit
- Live/Dead Cell Staining Kit

#### Cell Damage & Repair

- HDAC Fluorometric & Colorimetric Assays & Drug Discovery Kits
- HAT Colorimetric Assay Kit & Reagents
- DNA Damage Quantification Kit
- Glutathione & Nitric Oxide Fluorometric & Colorimetric Assay Kits

#### Signal Transduction

- cAMP & cGMP Assay Kits
- Akt & JNK Activity Assay Kits
- Beta-Secretase Activity Assay Kit

#### Adipocyte & Lipid Transfer

- Recombinant Adiponectin, Survivin, & Leptin
- CETP Activity Assay & Drug Discovery Kits
- PLTP Activity Assay & Drug Discovery Kits
- Total Cholesterol Quantification Kit

#### Molecular Biology & Reporter Assays

- siRNA Vectors
- Cloning Insert Quick Screening Kit
- Mitochondrial & Genomic DNA Isolation Kits
- 5 Minutes DNA Ligation Kit
- 20 Minutes Gel Staining/Destaining Kit
- $\beta$ -Galactosidase Staining Kit & Luciferase Reporter Assay Kit

#### Growth Factors and Cytokines

#### Monoclonal and Polyclonal Antibodies