

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

## Recombinant IL-1 $\beta$ , Human

Catalog Number: BK0094-1mg

Source: Escherichia coli.

Quantity: 1mg

### Description:

Interleukin-1 beta (rhIL-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 human Interleukin-1 beta (rhIL-1 $\beta$ ) produced in E.coli is a single non-glycosylated polypeptide chain containing 153 amino acids. A fully biologically active molecule, rhIL-1 $\beta$  has a molecular mass of 17.3kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

### Molecular Weight:

17.3 kDa, observed by reducing SDS-PAGE.

### Purity:

> 95% by SDS-PAGE and HPLC analyses.

### Biological Activity:

ED50 < 1.0 pg/ml, measured by the dose-dependent stimulation of mouse D10S cells, corresponding to a specific activity of  $1.0 \times 10^9$  IU/mg.

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

### Formulation:

Lyophilized after extensive dialysis against PBS.

### AA Sequence:

APVRSLNCTLRDSQQKSLVMSGPY-  
ELKALHLQGQDMEQQVVFMSFVQGEESND-  
KIPVALGLKEKNLYLSCVLKDDKPT-  
LQLESVDPKNYPKKKMEKRFVFNKIEINN-  
KLEFESAQFPNWY-  
ISTSQAENMPVFLGGTKGGQDITDFTMQFVSS

### Endotoxin:

<0.2 EU/ $\mu$ g, determined by LAL method.

### Reconstitution:

Reconstituted in ddH<sub>2</sub>O or PBS at 100  $\mu$ g/ml.

### Storage:

Lyophilized recombinant human Interleukin-1 beta (rhIL-1 $\beta$ ) remains stable up to 6 months at -80  $^{\circ}$ C from date of receipt. Upon reconstitution, rhIL-1 $\beta$  should be stable up to 2 weeks at 4  $^{\circ}$ C or up to 3 months at -20  $^{\circ}$ C.

### Usage:

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