

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant Human Interleukin-1 beta (rHu IL-1 β)

Catalog Number: PR1055

Source: Escherichia coli

Quantity: 2 μ g/10 μ g/1.0mg

Description

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.

Molecular Weight:

Approximately 17.3 kDa, a single non-glycosylated polypeptide chain containing 153 amino acids.

Purity:

>97% by SDS-PAGE and HPLC analyses.

Biological Activity:

Fully biologically active when compared to standard. The ED50 as determined by the dose-dependant stimulation of murine D10S cells is less than 1.0 pg/ml, corresponding to a Specific Activity of $\approx 1.0 \times 10^9$ IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.5.

AA Sequence:

A P V R S L N C T L R D S Q Q K S L V M S G P Y E L K
A L H L Q G Q D M E Q Q V V F S M S F V Q G E E S N
D K I P V A L G L K E K N L Y L S C V L K D D K P T L
Q L E S V D P K N Y P K K K M E K R F V F N K I E I N
N K L E F E S A Q F P N W Y I S T S Q A E N M P V F L
G G T K G G Q D I T D F T M Q F V S S

Endotoxin:

Less than 1EU/ μ g of rHuIL-1 β as determined by LAL method.

Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $< -20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Storage:

This lyophilized preparation is stable at $2-8^{\circ}\text{C}$, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at $2-8^{\circ}\text{C}$. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C . Avoid repeated freeze/thaw cycles.

Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. Made in China

MADE IN CHINA

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