

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant IL-1 β , Rat

Catalog Number: BK0097-10 μ g

Source: Escherichia coli.

Quantity: 10 μ g

Description:

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. Recombinant rat Interleukin-1 Beta (rat IL-1 Beta) produced in E.coli is a single non-glycosylated polypeptide chain containing 152 amino acids. A fully biologically active molecule, recombinant rat IL-1 Beta protein 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 < 10 pg/ml, measured by a cell proliferation assay using mouse D10S cells, corresponding to a specific activity of > 1.0 \times 10⁸ units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

VPIRQLHCRLRDEQQKCLVLSDPCELKALHLNG
QNISQQVVFMSFVQGETSND-
KIPVALGLKGLNLYLSCVMKDGTP-
LQLESVDPKQYPKKKMEKRFVFNKI-
EVKTKVEFESAQFPNWY-
ISTSQAHRPVFLGNSNGRDIVDFTMEPVSS

Endotoxin:

< 0.2 EU/ μ g, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O at 100 μ g/ml.

Storage:

Lyophilized recombinant rat Interleukin-1 Beta (IL-1 Beta) remains stable up to 6 months at -80 $^{\circ}$ C from date of receipt. Upon reconstitution, recombinant rat IL-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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