DATASHEET
Version 20181206

IL-1β, Human

Cat. No.: Z02922-50

Size: 50.0 ug

Synonyms: Catabolin, Lymphocyte-activating factor (LAF), Endogenous Pyrogen (EP), Leukocyte Endogenous Mediator (LEM), Mononuclear Cell Factor (MCF), IL1F2, IL-1 beta.

Description:

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

Amino Acid Sequence:

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00001 APVRSLNCTL RDSQQKSLVM SGPYELKALH LQGQDMEQQV
00041 VFSMSFVQGE ESNDKIPVAL GLKEKNLYLS CVLKDDKPTL
00081 QLESVDPKNY PKKKMEKRFV FNKIEINNKL EFESAQFPNW
00121 YISTSQAENM PVFLGGTKGG QDITDFTMQF VSS
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Source: *E. coli*

Species: Human

Biological Activity: ED_{50}< 1.0 pg/ml, measured by the dose-dependent stimulation of mouse D10S cells, corresponding to a specific activity of 1.0× 10^9 IU/mg.

Molecular Weight: 17.3 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH_2O or PBS at 100 μg/ml.

Purity: > 95% by SDS-PAGE and HPLC analyses.

Endotoxin Level: <0.2 EU/μg, determined by LAL method.

Storage: Lyophilized recombinant human Interleukin-1 beta (rhIL-1β) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhIL-1β should be stable up to 2 weeks at 4°C or up to 3 months at -20°C.

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