

DATASHEET
Version 20181206**IL-1 β , Rat****Cat. No.:** Z03014-50**Size:** 50.0 ug**Synonyms:** IL1F2, IL1B, Catabolin, Leukocyte Endogenous Mediator (LEM), Mononuclear Cell Factor (MCF)**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.

Amino Acid Sequence:

```
00001 VPIRQLHCRL RDEQQKCLVL SDPCELKALH LNGQNISQQV
00041 VFSMSFVQGE TSNDKIPVAL GLKGLNLYLS CVMKDGTPTL
00081 QLESVDPKQY PKKKMEKRFV FNKIEVTKV EFESAQFPNW
00121 YISTSQAEHR PVFLGNSNGR DIVDFTMEPV SS
```

Source: *E. coli***Species:** Rat**Biological Activity:** ED₅₀ < 10 pg/ml, measured by a cell proliferation assay using mouse D10S cells, corresponding to a specific activity of > 1.0× 10⁸ units/mg.**Molecular Weight:** 17.3 kDa, observed by reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against PBS.**Reconstitution:** Reconstituted in ddH₂O 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 rat Interleukin-1 Beta (IL-1 Beta) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, recombinant rat IL-1 Beta should be stable up to 2 weeks at 4°C or up to 3 months at -20°C.