



Overview

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 <i>E. coli</i> 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.
Accession No	Q63264
Species	Rat
Source	E. coli
Biological Activity	$ED_{50} < 10$ pg/ml, measured by a cell proliferation assay using mouse D10S cells, corresponding to a specific activity of > 1.0× 10 ⁸ units/mg.
Sequence	VPIRQLHCRL RDEQQKCLVL SDPCELKALH LNGQNISQQV VFSMSFVQGE TSNDKIPVAL GLKGLNLYLS CVMKDGTPTL QLESVDPKQY PKKKMEKRFV FNKIEVKTKV EFESAQFPNW YISTSQAEHR PVFLGNSNGR DIVDFTMEPV SS

Properties

Measured Molecula Weight	^r 17.3 kDa, observed by reducing SDS-PAGE.
Purity	> 95% by SDS-PAGE and HPLC analyses.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH₂O at 100 µg/ml.
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.

India Contact:

Life Technologies (India) Pvt. Ltd.

306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Mobile: +91-9810521400, Ph: +91-11-42208000 Email: <u>customerservice@lifetechindia.com</u> Web: <u>www.lifetechindia.com</u>