

Overview

Synonyms	Catabolin, Lymphocyte-activating factor (LAF), Endogenous Pyrogen (EP), Leukocyte Endogenous Mediator (LEM), Mononuclear Cell Factor (MCF)
Description	Interleukin-1 Beta (IL-1²) 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 mouse Interleukin-1 Beta(rmIL-1²) produced in <i>E. coli</i> is a single non-glycosylated polypeptide chain containing 153 amino acids. A fully biologically active molecule, rmIL-1 ² is obtained by proprietary chromatographic techniques, with an apparent molecular weight of 17.5kDa analyzed by reducing SDS-PAGE.
Species	Mouse
Source	<i>E. coli</i>
Biological Activity	ED ₅₀ < 10 pg/ml, measured by the dose-dependent stimulation of mouse D10.G4.1 helper T cells, corresponding to a specific activity of 1.0×10 ⁸ IU/mg.
Sequence	MVPIRQLHYR LRDEQQKSLV LSDPYELKAL HLNGQNINQQ VIFSMSFVQG EPSNDKIPVA LGLKGKNLYL SCVMKDGTPPT LQLESVDPKQ YPKKKMEKRF VFNKIEVKSK VEFESAEPFN WYISTSQAEH KPVFLGNNSG QDIIDFTMES VSS

Properties

Measured Molecular Weight	17.5kDa, observed by reducing SDS-PAGE.
Purity	> 95% by SDS-PAGE and HPLC analyses.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O or PBS at 100 µg/ml.
Endotoxin Level	<0.2 EU/µg, determined by LAL method.
Storage	Lyophilized recombinant mouse Interleukin-1 Beta(rmIL-1²) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rmIL-1 ² should be stable up to 2 weeks at 4°C or up to 3 months at -20°C.
Note	For research use only

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