Interleukin-1 beta, human recombinant (rHuIL-1-beta)

Catalog No: 94886
Lot No: XXXXX
Source: *E. coli*
Synonyms: Catabolin, Lymphocyte-activating factor (LAF), Endogenous Pyrogen (EP), Leukocyte Endogenous Mediator (LEM), Mononuclear Cell Factor (MCF), IL1F2, IL-1 beta

Background

Interleukin-1b is produced by activated macrophages, IL-1B stimulates thymocyte proliferation by inducing il-2 release, b-cell maturation and proliferation, and fibroblast growth factor activity. IL1B proteins are involved in the inflammatory response, being identified as endogenous pyrogens, and are reported to stimulate the release of prostaglandin and collagenase from synovial cells.

Description

Interleukin-1 beta human recombinant produced in *E. coli* is a non-glycosylated, polypeptide chain containing 153 amino acids and having a molecular mass of 17000 Dalton. IL-1b is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized from a concentrated (1 mg/ml) sterile solution containing 50 mM phosphate buffer pH 7.1 and 150 mM NaCl.

Solubility

It is recommended to reconstitute the lyophilized Interleukin-1b in sterile 18 MΩ-cm H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Interleukin-1b, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL1b should be stored at 4°C between 2-7 days and for future use below -18°C.For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 98.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Pro-Val-Arg-Ser.

Activity

The specific activity as determined in the test of augmentation of lymphocyte proliferation assay using mouse thymus was found to be 2.0 x 10^8 IU/mg.

Usage

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