

Recombinant Rat Interleukin-1 beta

#R00297

Size: 10 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Interleukin-1beta (IL-1 β) is a non-secreted proinflammatory cytokine produced mainly by activated macrophages, as well as neutrophils, epithelial cells, and endothelial cells. It possesses metabolic, physiological, haematopoietic activities, and plays one of the central roles in the regulation of the immune responses. Both IL-1 α and IL-1 β binds to the same receptor and has similar but not identical biological properties. The mature rat IL1 β shares 90 % a.a. sequence identity with cotton rat and mouse and 65 % to 77 % with canine, human, and rhesus IL1 β .

AA Sequence

MVPIRQLHCRLRDEQQKCLVLSDPCELKALHLNGQNI
SQQVVFSMSFVQGETSNDKIPVALGLKGLNLYLSCV
MKDGTPTLQLESVDPKQYPKKKMEKRFVFNKIEVKT
KVEFESAQFPNWIYSTSQAEHRPVFLGNSNGRDIVD
FTMEPVSS

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $\leq$ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	Catabolin, Leukocyte Endogenous Mediator, LEM, Lymphocyte-activating factor, LAF, Mononuclear Cell Factor, MCF , Endogenous Pyrogen, EP Q63264
Accession	Rn.9869.
Unigene	
Species	Rat
Source	Escherichia coli.
Molecular Weight	Approximately 17.3 kDa, a single non-glycosylated polypeptide chain containing 153 amino acids.
Purity	> 96 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell

proliferation assay using murine D10S cells is less than 0.1 ng/ml, corresponding to a specific activity of $> 1.0 \times 10^7$ IU/mg.

Physical Appearance Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.4, with 5 % trehalose, 0.02 % Tween-20.

Endotoxin Less than 1 EU/ μ g of rRtIL-1 β as determined by LAL method.
