

Recombinant Rhesus Macaque Interleukin-1 beta

#R00200

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 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. The mature Rhesus macaque IL1 β shares 96% amino acid sequence identity with rhesus and 67% -78% with canine, mouse and rat IL1 β .

AA Sequence

APVRS~~L~~HCTLRDAQLKSLVMSGPYELKALHLQGQDL
EQQVVF~~S~~MSFVQGEESNDKIPVALGLKAKNLYLSCVL
KDDKPTLQLESVDPKNYPKKKMEKRFVFNKIEINNKL
EFESAQFPN~~W~~YIST~~S~~QAENMPVFLGGTRGGQDITDF
TMQFVSS

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
Accession	P48090
GeneID	704701
Species	Rhesus
Source	Escherichia coli.
Molecular Weight	Approximately 17.3 kDa, a single non-glycosylated polypeptide chain containing 153 amino acids.
Purity	> 98 % 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 D10.G4.1 cells is less than 10 pg/ml, corresponding to a specific activity of $> 1.0 \times 10^8$ IU/mg.

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

Formulation Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.

Endotoxin Less than 1 EU/ μg of rRhIL-1 β as determined by LAL method.
