

Recombinant Mouse IL-1 beta

Information

Gene ID	16176
Accession #	P10749
Alternate Names	Catabolin, Leukocyte Endogenous Mediator, LEM, Lymphocyte-activating factor, LAF, Mononuclear Cell Factor, MCF, Endogenous Pyrogen, EP
Source	<i>Escherichia coli</i> .
M.Wt	Approximately 17.5 kDa, a single non-glycosylated polypeptide chain containing 152 amino acids.
AA Sequence	VPIRQLHYRL RDEQQKSLVL SDPYELKALH LNGQNINQQV IFSMSFVQGE PSNDKIPVAL GLKGKNLYLS CVMKDGTPTL QLESVDPKQY PKKKMEKRFV FNKIEVKSKV EFESAEPNW YISTSQAEHK PVFLGNNSGQ DIIDFTMESV SS
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
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.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.4, with 5 % trehalose, 0.02 % Tween-20.
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 ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.
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 2 pg/ml, corresponding to a specific activity of > 5.0 × 10 ⁸ IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10 µg	100 µg	500 µg
Recombinant Mouse IL-1 beta	10 µg	100 µg	500 µg

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Quality Control

Purity	> 96 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rMuIL-1β as determined by LAL method.

Description

Interleukin-1beta (IL-1β) 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-1α and IL-1β binds to the same receptor and has similar but not identical biological properties. The mature mouse IL1β shares 90 % amino acid sequence identity with cotton rat and rat and 65 %-78 % identity with canine, human and rhesus IL1β.

Reference

1. Bankers-Fulbright, J.L., K.R. Kalli, and D.J. McKean. 1996. Life Sci, 59: 61-83.
2. Dinarello, C.A. 1997. Semin Oncol, 24: S9-81-S9-93.
3. Martinon, F., and J. Tschopp. 2007. Cell Death Differ, 14: 10-22.
4. Gray, P.W., D. Glaister, E. Chen, et al. 1986. J Immunol, 137: 3644-8.

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