

Recombinant Murine Interleukin-1 alpha

#R00214

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-1 alpha (IL-1α) 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 if not identical biological properties. Among various species, the amino acid sequence of mature IL-1α is conserved 60 % to 70 % and human IL1 has been found to be biologically active on murine cell lines .

AA Sequence

SAPYTYQSDLR YKLMKLV RQKFVMNDSL NQTIYQDV
DKHYLSTTWLNDLQQEVKFD MYAYSSGGDDSKYPVT
LKISDSQLFVSAQGEDQP VLLKELPETPKLITGSETDLI
FFWKSINSKNYFTSAAYPELF IATKEQSRVHLARGLP S

MTDFQIS

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.

Product Specification

Synonyms	Lymphocyte-activating factor, LAF, Leukocyte Endogenous Mediator, LEM, Endogenous Pyrogen, EP, Mononuclear Cell Factor, MCF, Hematopoietin-1
Accession	Q3U0Y6
GeneID	16175
Species	Murine
Source	Escherichia coli.
Molecular Weight	Approximately 17.9 kDa, a single non-glycosylated polypeptide chain containing 156 amino acids.
Purity	> 97 % 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 2 pg/ml, corresponding to a specific activity of $> 5.0 \times 10^8$ IU/mg.

Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS, pH 7.4.
Endotoxin	Less than 1 EU/ μ g of rMuL-1 α as determined by LAL method.
