

Recombinant Human IL-1 alpha

Information

Gene ID	3552
Accession #	P01583
Alternate Names	Interleukin-1 alpha, IL-1 α , BAF, IL-1F1, LAF, LEM, preinterleukin 1 alpha, pro-interleukin-1-alpha
Source	<i>Escherichia coli</i> .
M.Wt	Approximately 18.0 kDa, a single non-glycosylated polypeptide chain containing 159 amino acids.
AA Sequence	SAPFSFLSNV KYNFMRIKY EFILNDALNQ SIIRANDQYL TAAALHNLDE AVKFDMGAYK SSKDDAKITV ILRISKTKLY VTAQDEDPV LLKEMPEIPK TITGSETNLL FFWETHGTKN YFTSVAHPNL FIATKQDYWV CLAGGPPSIT DFQILENQA
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 μ m filtered concentrated solution in PBS, pH 7.4.
Solubility	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.
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 1.0 pg/ml, corresponding to a specific activity of $> 1.0 \times 10^9$ 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 μ g	100 μ g	500 μ g
Recombinant Human IL-1 alpha	10 μ g	100 μ g	500 μ g
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Quality Control

Purity	> 97% by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1.0 EU/ μ g of rHuIL-1 α as determined by LAL method.

Description

Interleukin-1 alpha (IL-1 α) 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 identical biological properties. Among various species, the amino acid sequence of mature IL-1 α is conserved 60 % to 70 % and human IL-1 has been found to be biologically active on murine cell lines. IL-1 α recently started to find effective application in cosmetic and dermatological formulations, which allow to significantly harmonizing derma architecture.

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.

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