

Recombinant Human Interleukin-1 alpha (rh IL-1a / IL1F1)

Synonyms: Hematopoietin-1, Lymphocyte- activating factor (LAF), Endogenous Pyrogen (EP), Leukocyte Endogenous Mediator (LEM), Mononuclear Cell Factor (MCF), IL1F1

Introduction: IL-1 alpha is produced by activated macrophages, stimulates thymocyte proliferation by inducing IL-2 release, b- cell maturation and proliferation and fibroblast growth factor activity. IL-1alpha proteins are involved in the inflammatory response, being identified as endogenous pyrogens and are reported to stimulate the release of prostaglandin and collagenase from synovial cells.

Description: Recombinant human IL-1alpha produced in *E.Coli* is a non-glycosylated, polypeptide chain containing 159 amino acids and having a molecular mass of 18 kDa. The rh IL-1alpha is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

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

Formulation: lyophilized from a 0.22 µm filtered solution in 50 mM Tris, 200 mM NaCl, pH 8.0
The aliquots of 1µg and 2µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rh IL-1alpha in sterile H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rh IL-1alpha although stable at room temperature for 3 weeks, should be stored desiccated below -18° C . Upon reconstitution rh IL-1alpha should be stored at 4° C between 2-7 days and for future use below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity: Greater than 95.0% as determined by SDS-PAGE / silver stain.

Amino acid sequence: SAPFSFLSNV KYNFMRIKY EFILNDALNQ SIIRANDQYL TAAALHNLDE
AVKFDMGAYK SSKDDAKITV ILRISKTQLY VTAQDEDQPV LKEMPEIPK TITGSETNLL FFWETHGTKN
YFTSVAHPNL FIATKQDYWV CLAGGPPSIT DFAQILENQA

Biological Activity: The ED₅₀ as tested by IL-1alpha induced proliferation of murine D10G4.1 cells is < 0.001 ng/ml, corresponding to a specific activity of 1 x 10⁹ IU/mg.

Endotoxicity: The endotoxin level is less than 1 EU / µg determined by LAL method

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	11349012
<i>medium</i>	10 µg	Cat.N°	11349013
<i>large</i>	50 µg	Cat.N°	11349015
<i>x-large</i>	250 µg	Cat.N°	11349017
<i>xx-large</i>	1000 µg	Cat.N°	11349018

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