

Human IL-1 alpha

Human Interleukin-1 α , recombinant

Synonyms: Hematopoietin-1, Lymphocyte-activating factor (LAF), Endogenous Pyrogen (EP), Leukocyte Endogenous Mediator (LEM), Mononuclear Cell Factor (MCF), IL-1 alpha, IL1, IL-1A, IL1F1.

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order #	Lot #	Expiry Date
2 μ g	1495.950.002		
10 μ g	1495.950.010		
1 mg	1495.950.199		

Please enquire for bulk quantities and other vial sizes

Description

Recombinant human Interleukin-1 alpha (IL-1 alpha) is a 18.0 kDa protein containing 159 amino acid residues. IL-1 alpha is a non-secreted proinflammatory cytokine produced in a variety of cells including monocytes, tissue macrophages, keratinocytes and other epithelial cells. Both IL-alpha and IL-1 beta binds to the same receptor and has similar if not identical biological properties. These cytokines have a broad range of activities including, stimulation of thymo-cyte 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. However, whereas IL-1 beta is a secreted cytokine, IL-1 alpha is predominantly a cell-associated cytokine.

- **Biological Activity** $\geq 1.0 \times 10^9$ IU/mg
- **Source** *E. Coli*
- **Purity** $\geq 97\%$ (SDS-PAGE, RP-HPLC)
- **Endotoxin level** ≤ 0.1 ng/ μ g (≤ 1 EU/ μ g)
- **Stabilizer** None
- **Buffer** Tris-HCl (25mM; pH 8.0)*
- **Physical state** Sterile filtered, lyophilized

Biological Activity

The ED₅₀ of ≤ 0.001 ng/ml was determined by the dose-dependent stimulation of the proliferation of murine D10S cells. It corresponds to a specific activity of $\geq 1.0 \times 10^9$ units/mg.

Reconstitution

We recommend a quick spin followed by reconstitution in water to a concentration of 0.1 - 1.0 mg/ml. This solution can then be diluted into other aqueous buffers and stored at 4 °C for 1 week or -20°C for future use.

Stability

Lyophilized Interleukin-1 alpha although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL-1a should be stored at 4°C between 2-7 days and for future use below -18°C. **Please avoid repeated freeze-thaw cycles.**

Amino Acid Sequence

SAPFSFLSNV KYNFMRIKY EFILNDALNQ SIIRANDQYL TAAALHNLDE AVKFDMGAYK SSKDDAKITV
 ILRISKTLQLY VTAQDEDQPV LLKEMPEIPK TITGSETNLL FFWETHGTKN YFTSVAHPNL FIATKQDYWV
 CLAGGPPSIT DFQILENQA

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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