

Rat IL-1 alpha

Rat 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	1495.970.002		
10 μ g	1495.970.010		
1 mg	1495.970.199		

Please enquire for bulk quantities and other vial sizes

Description

Recombinant Rat Interleukin-1 alpha (IL-1 alpha) is a 17.7 kDa protein consisting of 155 amino acid residues. Rat 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-1 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 thymocyte 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 a predominantly a cell-associated cytokine.

- **Biological Activity** $\geq 2.0 \times 10^8$ IU/mg
- **Source** *E. Coli*
- **Purity** ≥ 98 % (SDS-PAGE, RP-HPLC)
- **Endotoxin level** ≤ 0.1 ng/ μ g (≤ 1 EU/ μ g)
- **Stabilizer** None
- **Buffer** 5x TRIS; pH 8.0*
- **Physical state** Sterile filtered, lyophilized

Biological Activity

The ED₅₀ of ≤ 0.005 ng/ml was determined by the dose-dependent stimulation of the proliferation of murine D10S cells. It corresponds to a specific activity of $\geq 2.0 \times 10^8$ units/mg.

Reconstitution

We recommend a quick spin followed by reconstitution in water to a concentration of 0.1-1.0mg/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

The lyophilized protein is stable at room temperature for 3 weeks, but best stored desiccated below -18°C. Upon reconstitution IL1A 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, order number: [2835.955.xyz](#) or [2835.958.xyz](#), or BSA, order number: [2835.919.xyz](#)). **Please avoid repeated freeze-thaw cycles.**

Amino Acid Sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Pro-His-Ser-Phe.

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.