

## Recombinant Rat Interleukin-1alpha (rr IL-1alpha)

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

**Introduction:** Interleukin-1 alpha is a proinflammatory cytokine produced by a wide variety of cell types, including macrophages, osteoblasts, monocytes and hepatocytes. Circulating levels of are normally low and only rise after stimulation by agents such as those produced by inflammation, infection or microbial endotoxins. IL-1 alpha possesses a wide variety of biological activities and exerts its effects by binding to specific cell surface receptors.

**Description:** rr Interleukin-1A produced in E.Coli is single, a non-glycosylated, polypeptide chain containing 156 amino acids and having a molecular mass of 17.7 kDa.

The IL-1a is purified by proprietary chromatographic techniques.

**Source:** *Escherichia Coli*.

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:** Lyophilised from a 0.2 µm filtered solution in 25 mM sodium phosphate pH 8.2, containing 200mM NaCl.

The aliquotes of 1µg and 2 µg contain Trehalose 5% (w/vol) for better recovery

**Solubility:** It is recommended to reconstitute the lyophilized rr IL-1a in sterile H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**Stability:** Lyophilized rr IL-1a, although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rr IL-1a 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:** 95.0% as determined by SDS-PAGE.

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

**Amino acid sequence:** MAPHSFQNNL RYKLIRIVKQ EFIMNDSLQ NIYVDMDRIH LKAASLNDLQ LEVKFDMYAY SSGGDDSKYP VTLKVSNTQL FVSAQGEDKP VLLKEIPETP KLITGSETDL IFFWEKINSK NYFTSAAFPE LLIATKEQSQ VHLARGLPSM IDFAQIS

**Biological Activity:** The ED<sub>50</sub> as determined by its ability to promote proliferation of murine D10.G4.1 cells is < 0.005 ng/ml, corresponding to a specific activity of 2 x 10<sup>8</sup> IU/mg.

This material is offered for **research 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°	13349012
<i>medium</i>	10 µg	Cat.N°	13349013
<i>large</i>	50 µg	Cat.N°	13349015
<i>x-large</i>	250 µg	Cat.N°	13349017
<i>xx-large</i>	1000 µg	Cat.N°	13349018

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