

## Recombinant Murine Interleukin-1alpha (rm IL-1a / rm IL1F1)

Murine **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 predominantly a cell-associated cytokine.

Recombinant murine Interleukin-1alpha produced in E.Coli is a non-glycosylated, polypeptide chain containing 156 amino acids and having a molecular mass of 18 kDa.

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

**Source:** *Escherichia coli*

**AA Sequence:** SAPYTYQSDL RYKLMKLV R QKFVMNDSL N QTIYQDV D K H YLSTTWLNDL  
QQEVKFD MYA YSSGGDDSK Y PVT LKISDSQ L FVSAQGEDQ PVLLKELPET  
PKLITGSETD L IFFWKSINS KNYFTSAAYP ELFIATKEQS RVHLARGLPS  
MTDFQIS

**Formulation:** Lyophilisate from a 0.22  $\mu$ m filtered carrier free solution in PBS, pH 7.2

**Reconstitution:** Reconstitute in sterile endotoxin free water not less than 100  $\mu$ g/ml

**Stability:** The lyophilized protein is stable for at least 2 years at  $-20^{\circ}$ C. Reconstituted rm IL-1a is stable for at least 3 months when stored in concentrated working aliquots (100 ng/ $\mu$ l or higher) at  $-20^{\circ}$ C. Avoid repeated freeze/thaw cycles.

**Biological Activity:** The ED<sub>50</sub> as determined by the dose-dependant stimulation of murine D10S cells is < 0.01 ng/ml, corresponding to a specific activity of  $1 \times 10^8$  IU/mg.

**Purity:** 95% (verified by SDS-PAGE / silver stain)

**Endotoxicity:** The endotoxin level is less than 0.1 ng per  $\mu$ g (1EU/ $\mu$ g) determined by LAL method

**Order N<sup>o</sup>:** rm IL-1a+Size  
available sizes: 2  $\mu$ g, 10  $\mu$ g, 50  $\mu$ g

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