

**DATASHEET**  
Version 20181206**IL-1 $\alpha$ , Mouse****Cat. No.:** Z02912-1**Size:** 1.0 mg**Synonyms:** Interleukin-1 Alpha, Mouse;**Description:**

Interleukin-1 alpha (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.

**Amino Acid Sequence:**

00001 SAPYTYQSDL RYKLMKLVQR KFMNDNLNQ TIYQVDKHY  
00041 LSTTWLNDLQ QEVKFDYAY SSGDDSKYP VTLKISDSQL  
00081 FVSAQGEDQP VLLKELPETP KLITGSETDL IFFWKSINSK  
00121 NYFTSAAYPE LFIATKEQSR VHLARGLPSM TDFQIS

**Source:** *E. coli***Species:** Mouse

**Biological Activity:** Fully biologically active when compared to standard. The ED<sub>50</sub> as determined by a cell proliferation assay using murine D10S cells is less than 2 pg/ml, corresponding to a specific activity of  $> 5.0 \times 10^8$  IU/mg.

**Molecular Weight:** Approximately 17.9 kDa, a single non-glycosylated polypeptide chain containing 156 amino acids.

**Formulation:** Lyophilized from a 0.2  $\mu$ m filtered solution in PBS, pH 7.4.

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

**Reconstitution:** We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at  $\leq -20$  °C. Further dilutions should be made in appropriate buffered solutions.

**Purity:**  $> 97$  % by SDS-PAGE and HPLC analyses.

**Endotoxin Level:** Less than 1 EU/ $\mu$ g of rMuIL-1 $\alpha$  as determined by LAL method.

**Storage:** This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. Avoid repeated freeze/thaw cycles.