



## Technical Data Sheet

### Recombinant Murine Interleukin-1 Alpha (rMuIL-1 $\alpha$ )

#### **Murine Interleukin-1 alpha**

Interleukin-1 alpha (IL-1 $\alpha$ ) is a non-secreted proinflammatory cytokine produced mainly by activated macrophages, as well as neutrophils, epithelial cells, and endothelial cells. It possesses metabolic, physiological, haematopoietic activities, and plays one of the central roles in the regulation of the immune responses. Both IL-1 $\alpha$  and IL-1 $\beta$  binds to the same receptor and has similar if not identical biological properties. Among various species, the amino acid sequence of mature IL-1 $\alpha$  is conserved 60 % to 70 % and human IL1 has been found to be biologically active on murine cell lines .

<b>Catalog Number:</b>	RC232-12A
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 17.9 kDa, a single non-glycosylated polypeptide chain containing 156 amino acids.
<b>Quantity:</b>	2 $\mu$ g/10 $\mu$ g/1000 $\mu$ g
<b>AA Sequence:</b>	SAPYTYQSDL RYKLMKLVQR KFMNDSLQ TIYQDVDKHY LSTTWLNDLQ QEVKFDMYAY SSGGDDSKYP VTLKISDSQL FVSAQGEDQP VLLKELPETP KLITGSETDL IFFWKSINSK NYFTSAAYPE LFIATKEQSR VHLARGLPSM TDFQIS
<b>Purity:</b>	> 97 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	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 <sup>8</sup> IU/mg.
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS, pH 7.4.
<b>Endotoxin:</b>	Less than 1 EU/ $\mu$ g of rMuIL-1 $\alpha$ as determined by LAL method.
<b>Reconstitution:</b>	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 $^{\circ}$ C. Further dilutions should be made in appropriate buffered solutions.
<b>Storage:</b>	This lyophilized preparation is stable at 2-8 $^{\circ}$ C, but should be kept at -20 $^{\circ}$ C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 $^{\circ}$ C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 $^{\circ}$ C to -70 $^{\circ}$ C. <b>Avoid repeated freeze/thaw cycles.</b>
<b>Usage:</b>	This material is offered by Bio Basic Canada Inc. for research, laboratory or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>



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