



Technical Data Sheet

Recombinant Human Interleukin-1 alpha (rHu IL-1 α)

Human 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-1alpha and IL-1beta 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-1beta is a secreted cytokine, IL-1alpha is predominantly a cell-associated cytokine.

Catalog Number:	RC212-12A
Source:	<i>Escherichia coli</i>
Molecular Weight:	Approximately 18.0 kDa, a single non-glycosylated polypeptide chain containing 159 amino acids.
Quantity:	2ug/10ug/1000 μ g
Purity:	>97% by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ as determined by the dose-dependant stimulation of murine D10S cells is less than 0.001 ng/ml, corresponding to a Specific Activity of 1 x 10 ⁹ IU/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 μ m filtered concentrated (1mg/ml) solution in PBS, pH 7.5.
AA Sequence:	SAPFSLSNV KYNFMRIKY EFILNDALNQ SIIRANDQYL TAAALHNLDE AVKFDMGAYK SSKDDAKITV ILRISKTQLY VTAQDEDQPV LLKEMPEIPK TITGSETNLL FFWETHGTKN YFTSVAHPNL FIATKQDYWV CLAGGPPSIT DFOILENQA
Endotoxin:	Less than 1EU/ μ g of rHuIL-1 α as determined by LAL method.
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.
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



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Usage:

preparation into working aliquots and store at -20°C to -70°C . Avoid repeated freeze/thaw cycles.

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