

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant Human Interleukin-1 alpha (rHuIL-1 α)

Catalog Number: PR1054

Source: Escherichia coli

Quantity: 2 μ g/10 μ g/1.0mg

Description

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.

Molecular Weight:

Approximately 18.0 kDa, a single non-glycosylated polypeptide chain containing 159 amino acids.

Purity:

>97% by SDS-PAGE and HPLC analyses.

Biological Activity:

Fully biologically active when compared to standard. The ED50 as determined by the dose-dependant stimulation of murine D10S cells is less than 0.001 ng/ml, corresponding to a Specific Activity of $\geq 1 \times 10^9$ IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.5.

AA Sequence:

S A P F S F L S N V K Y N F M R I I K Y E F I L N D A L
N Q S I I R A N D Q Y L T A A A L H N L D E A V K F D
M G A Y K S S K D D A K I T V I L R I S K T Q L Y V T
A Q D E D Q P V L L K E M P E I P K T I T G S E T N L L
F F W E T H G T K N Y F T S V A H P N L F I A T K Q D
Y W V C L A G G P P S I T D F Q I L E N Q A

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 $<-20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Storage:

This lyophilized preparation is stable at $2-8^{\circ}\text{C}$, 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 $2-8^{\circ}\text{C}$. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C . Avoid repeated freeze/thaw cycles.

Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. Made in China

MADE IN CHINA

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