

## DATASHEET

<b>Name</b>	<b>IL-1 A, REC.HU</b>		
Product	Interleukin-1 alpha, Rec. Human	Article-No.	40120
Formulation	White powder - lyophilised from a concentrated (1mg/ml) sterile solution containing 20mM Tris-HCL, pH=8, 5mM MgCl <sub>2</sub> and 10% Glycerol	Storage	Freezer at -20°C Prevent freeze-thaw cycles

### Introduction:

Interleukin-1 alpha is produced by activated macrophages, stimulates thymocyte proliferation by inducing il-2 release, b-cell maturation and proliferation, and fibroblast growth factor activity. IL1A proteins are involved in the inflammatory response, being identified as endogenous pyrogens, and are reported to stimulate the release of prostaglandin and collagenase from synovial cells.

### Description:

Recombinant Human Interleukin-1 alpha produced in *Escherichia Coli* is single, a non-glycosylated, Polypeptide chain containing 159 amino acids and having a molecular mass of 18022 Dalton. The IL-1A is purified by proprietary chromatographic techniques.

**Source:** *Escherichia Coli*.

**Purity:** > 98.0% (RP-HPLC & SDS-PAGE)

### Solubility:

It is recommended to reconstitute the lyophilised rHuIL-1a in sterile 18MΩ-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

### Stability:

Lyophilised rHuIL-1a although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL-1a should be stored at 4°C between 2-7 days and for future use below -18°C.

### Amino acid sequence:

The sequence of the first five N-terminal amino acids was determined and was found to be Ser-Ala-Pro-Phe-Ser.

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### **Biological Activity:**

The ED<sub>50</sub> as determined by the dose-dependent stimulation of mouse D10S cells is < 0.001 ng/ml, corresponding to a Specific Activity of 1 x 10<sup>9</sup> IU/mg.

### **Protein content:**

Protein quantification was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 1.13 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a standard solution of IL-1 as a reference standard.

### **Usage:**

Our products are intended for lab research only. Not for human, animal or diagnostic use.