

# Recombinant Mouse IL-1 alpha Protein

Catalog No.: RP01319 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Mouse	16175	P01582

### Tags

C-His

### Synonyms

BAF;Hematopoietin-1;IL1 alpha;IL-1 alpha;IL1;IL1A;IL-1A;IL1-ALPHA;IL1F1;IL-1F1;IL1a

## Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

### Endotoxin

&lt; 0.1 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Background

IL-1 alpha is a member of the interleukin 1 cytokine family. Cytokines are proteinaceous signaling compounds that are major mediators of the immune response. They control many different cellular functions including proliferation, differentiation, and cell survival/apoptosis but are also involved in several pathophysiological processes including viral infections and autoimmune diseases. Cytokines are synthesized under various stimuli by a variety of cells of both the innate (monocytes, macrophages, dendritic cells) and adaptive (T- and B-cells) immune systems. IL-1 alpha is a pleiotropic cytokine involved in various immune responses, inflammatory processes, and hematopoiesis. It is produced by monocytes and macrophages as a proprotein, which is proteolytically processed and released in response to cell injury, and thus induces apoptosis. IL-1 alpha stimulates thymocyte proliferation by inducing IL-2 release, B-cell maturation and proliferation, and fibroblast growth factor activity.

## Basic Information

### Description

Recombinant Mouse IL-1 alpha Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ser115-Ser270) of Mouse IL1a (Accession #NP\_034684.2) fused with an 6xHis tag at the C-terminus.

### Bio-Activity

Measured in a cell proliferation assay using D10.G4.1 mouse helper T cells. The ED<sub>50</sub> for this effect is 0.420-1.68 ng/mL.

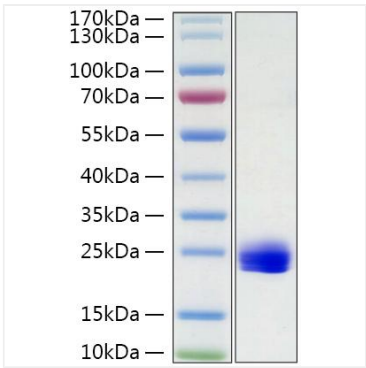
### Storage

Store the lyophilized protein at -20°C to -80°C for long term. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

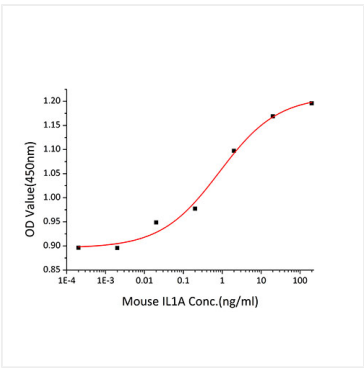
## Contact

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Validation Data



Recombinant Mouse IL-1 alpha Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 20-25 kDa.



Recombinant Mouse IL-1A promotes the proliferation of D10.G4.1 mouse helper T cells. The ED<sub>50</sub> for this effect is 0.420-1.68 ng/mL.