

# Mouse IL-1 Alpha, His Tag, E. coli

Catalog Number LDG022PME

Package 5 μg / 20 μg / 100 μg / Customized package

For full product information, images and publications, please visit our website.



## **Specifications**

**Species of Origin** 

Mouse

**Affinity Tag** 

His Tag (C-term)

**Purity** 

>95% as determined by SDS-PAGE analysis.

**Activity** 

Measure by its ability to induce D10.G4.1 cells proliferation. The ED $_{50}$  for this effect is <5 pg/mL. The specific activity of recombinant mouse IL-1 alpha is > 2 x 10 $^{8}$  IU/mg.

Form

Lyophilized

**Expression System** 

Escherichia coli

**Storage Buffer** 

Lyophilized from a 0.2  $\mu m$  filtered solution of PBS, pH 7.4.

Molecular weight

The protein has a calculated MW of 18.93 kDa. The protein migrates as 20 kDa under reducing condition (SDS-PAGE analysis).

**Endotoxin Level** 

<0.1 EU per 1  $\mu g$  of the protein by the LAL method.

**Background** 

**Tainan Headquarters** 

**Innovation & Research Center** 

**CLD Center** 



#### Background

Interleukin-1 alpha (IL1 alpha or IL1a) is a member of the interleukin-1 cytokine family, found constitutively present in epithelial layers of the entire gastrointestinal tract, lung, liver, kidney, endothelial cells, and astrocytes. The synthesized IL-1 alpha is a 31 kDa inactive precursor and can be cleaved by intracellular caspase-1 or extracellular proteases to generate the bioactive 17 kDa form and the 16 kDa N-terminal cleavage product. Both precursor and mature IL-1 alpha protein bind to the IL-1 receptor (IL-1R), initiating a cascade of inflammatory cytokines and chemokines production such as IL-6, IL-8, and TNF, in response to viral and bacterial pathogens conditions. IL-1 alpha plays a central role in immune-surveillance mechanisms, stimulating macrophages, neutrophils, and CD8+ T cells activity.

Synonyms
Interleukin-1

Interleukin-1 alpha, IL-1 alpha

**Uniprot ID** 

#P01582

**Sequence Note** 

Ser115-Ser270

#### Instruction

#### Reconstitution

It is recommended to reconstitute the lyophilized protein in sterile  $H_2O$  to a concentration not less than 200  $\mu g/mL$  and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved.

#### **Shipping**

The product is shipped with polar packs. Upon receipt, store it immediately at -20°C or lower for long term storage.



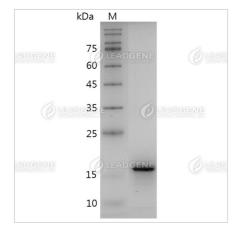
### Stability & Storage

This product is stable after storage at:

- -20°C for 12 months in lyophilized state from date of receipt.
- -20°C or -80°C for 1 month under sterile conditions after reconstitution.

Avoid repeated freeze/thaw cycles.

## **Image**



SDS-PAGE analysis of recombinant mouse IL-1 alpha.

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