

Human IL-1 Alpha, His Tag, E. coli

Catalog Number	LDG002PHE
Package	5 µg / 20 µg / 100 µg / Customized package

For full product information, images and publications, please visit [our website](#).



Specifications

Species of Origin

Human

Affinity Tag

His Tag (C-term)

Purity

>98% as determined by SDS-PAGE analysis.

Activity

Measure by its ability to induce D10.G4.1 cells proliferation. The ED₅₀ for this effect is <10 pg/mL. The specific activity of recombinant human IL-1 alpha is approximately >1 x10⁸ IU/ mg.

Form

Lyophilized

Expression system

Escherichia coli

Buffer

Lyophilized from a 0.2 µm filtered solution of PBS, pH 8.0.

Molecular weight

The protein has a calculated MW of 19 kDa. The protein migrates as 17 kDa under reducing condition (SDS-PAGE analysis).

Endotoxin level

<0.1 EU per 1 µg of the protein by the LAL method.

Background

Tainan Headquarter

+886-6-2536677

bd@leadgene.com.tw

Innovation & Research Center

+886-2-27065528

CLD Center

+886-6-2536677

Background

Interleukin-1 alpha (IL1 alpha or IL1 α) 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.

Uniprot ID

#P01583

Synonyms

Interleukin-1 alpha, Hematopoietin-1

Sequence Note

Ser113-Ala271

Instruction

Reconstitution

It is recommended to reconstitute the lyophilized protein in sterile H₂O to a concentration of 200 μ 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.

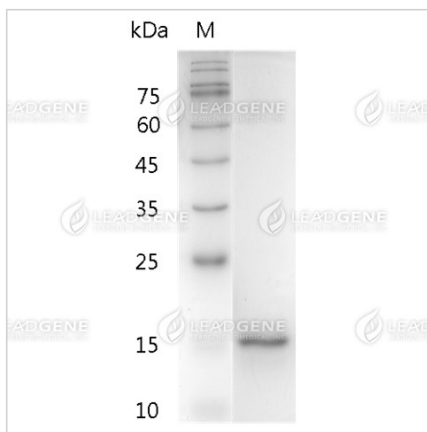
Stability & Storage

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 human IL-1 Alpha.

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