

Active Recombinant Human IL1A Protein (Ser113-Ala271), C-His tagged, Animal-free, Carrier-free

Cat. No. IL1A-162H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL1A Protein (Ser113-Ala271) with C-His tag was expressed in E. coli and Animal-free as well as Carrier-free.
Species	Human
Source	E.coli
ProteinLength	Ser113-Ala271
Description	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.
Form	Lyophilized
Bio-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

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	>1 × 10 ⁸ IU/ mg.
Molecular Mass	The protein has a calculated MW of 19 kDa. The protein migrates as 17 kDa under reducing condition (SDS-PAGE analysis).
Endotoxin	< 0.1 EU/μg of the protein by the LAL method.
Purity	>98% as determined by SDS-PAGE analysis.
Storage	This product is stable after storage at: -20 centigrade for 12 months in lyophilized state from date of receipt. -20 or -80 centigrade for 1 month under sterile conditions after reconstitution. Avoid repeated freeze/thaw cycles.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution of PBS, pH 8.0.
Reconstitution	It is recommended to reconstitute the lyophilized protein in sterile H ₂ O to a concentration not less than 200 μg/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 centigrade or lower for long term storage.

GENE INFORMATION

Gene Name	IL1A interleukin 1, alpha [Homo sapiens (human)]
Official Symbol	IL1A
Synonyms	IL1A; interleukin 1, alpha; IL1; interleukin-1 alpha; hematopoietin 1; IL 1A; IL1 ALPHA; IL1F1; preinterleukin 1 alpha; pro interleukin 1 alpha; IL-1 alpha;

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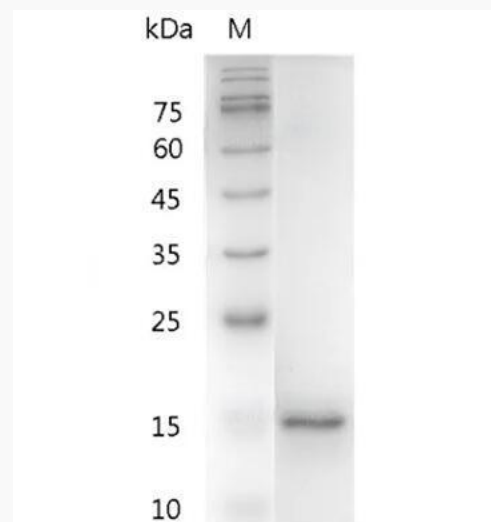

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hematopoietin-1; pro-interleukin-1-alpha; IL-1A; IL1-ALPHA;

Gene ID [3552](#)**mRNA Refseq** [NM_000575](#)**Protein Refseq** [NP_000566](#)**MIM** [147760](#)**UniProt ID** [P01583](#)

**SDS-PAGE analysis
of recombinant
human IL-1 Alpha.**

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