# Active Recombinant Mouse Il1a Protein (Ser115-Ser270), C-His tagged, Animal-free, Carrier-free

**Cat. No.** Il1a-54M **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant Mouse Il1a Protein (Ser115-Ser270) with C-His tag was expressed in E. coli and Animal-free as well as Carrier-free. |
| **Species** | Mouse |
| **Source** | E.coli |
| **ProteinLength** | Ser115-Ser270 |
| **Description** | Interleukin-1 alpha (IL1 alpha or IL1α) 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 < 5 pg/mL. The specific activity of recombinant mouse IL-1 alpha is > 2 × |

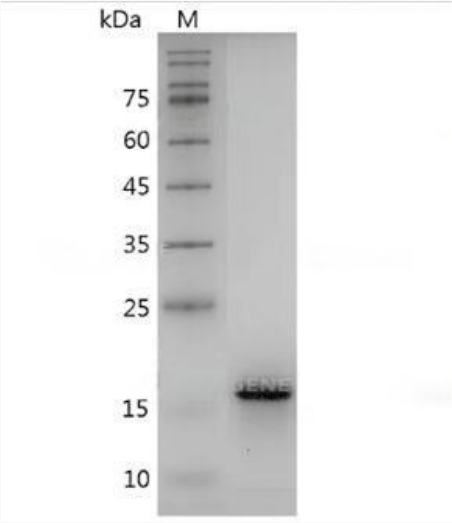
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| | $10^8$ IU/mg. |
| **Molecular Mass** | The protein has a calculated MW of 18.93 kDa.<br>The protein migrates as 20 kDa under reducing condition (SDS-PAGE analysis). |
| **Endotoxin** | < 0.1 EU/μg of the protein by the LAL method. |
| **Purity** | >95% as determined by SDS-PAGE analysis. |
| **Storage** | This product is stable after storage at:<br>-20 centigrade for 12 months in lyophilized state from date of receipt.<br>-20 or -80 centigrade for 1 month under sterile conditions after reconstitution.<br>Avoid repeated freeze/thaw cycles. |
| **Storage Buffer** | Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. |
| **Reconstitution** | It is recommended to reconstitute the lyophilized protein in sterile H2O 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

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| **Gene Name** | Il1a interleukin 1 alpha [ Mus musculus (house mouse) ] |
| **Official Symbol** | Il1a |
| **Synonyms** | IL1A; interleukin 1 alpha; interleukin-1 alpha; IL-1 alpha; Il-1a; |

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| **Gene ID** | 16175 |
| **mRNA Refseq** | NM_010554 |
| **Protein Refseq** | NP_034684 |
| **UniProt ID** | P01582 |
| **SDS-PAGE analysis of recombinant mouse IL-1 alpha.** |  |



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