

# Human IL-1 alpha/IL-1A Protein

Cat. No. IL1-HM20A

## Description

<b>Source</b>	Recombinant Human IL-1 alpha/IL-1A Protein is expressed from HEK293 with hFc tag at the C-terminus. It contains Phe113-Thr271.
<b>Accession</b>	P01583
<b>Molecular Weight</b>	The protein has a predicted MW of 43.99 kDa. Due to glycosylation, the protein migrates to 50-60 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1EU per $\mu\text{g}$ by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

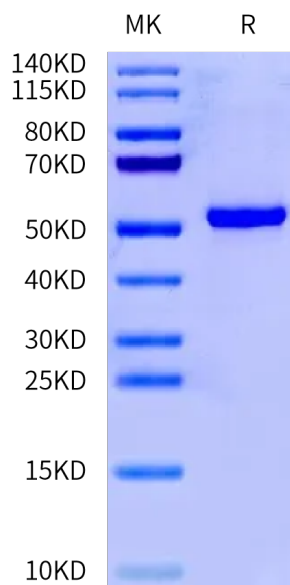
<b>Formulation</b>	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g/ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

The interleukin (IL)-1 family of cytokines is currently comprised of 11 members that have pleiotropic functions in inflammation and cancer. IL-1 $\alpha$  and IL-1 $\beta$  were the first members of the IL-1 family to be described, and both signal via the same receptor, IL-1R. Over the last decade, much progress has been made in our understanding of biogenesis of IL-1 $\beta$  and its functions in human diseases.

## Assay Data

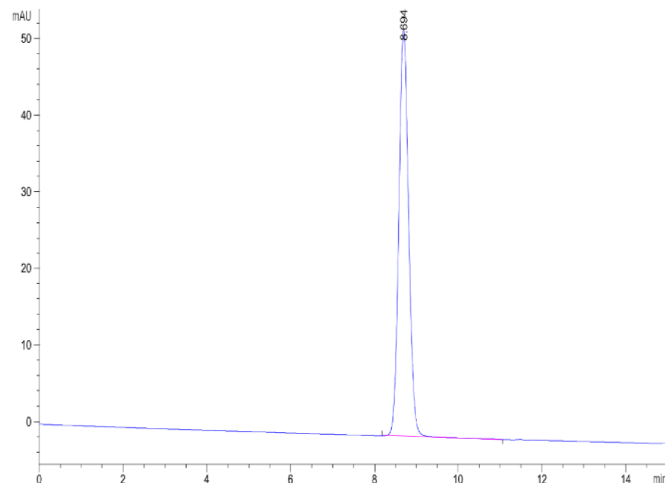
### Bis-Tris PAGE



Human IL-1 alpha on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

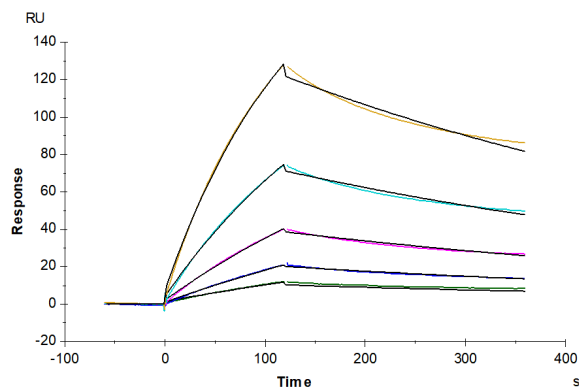
### SEC-HPLC

Assay Data



The purity of Human IL-1 alpha is greater than 95% as determined by SEC-HPLC.

SPR Data



Human IL-1R1, His Tag captured on CM5 Chip via Anti-His Antibody can bind Human IL-1 alpha, hFc Tag with an affinity constant of 0.28  $\mu\text{M}$  as determined in SPR assay (Biacore T200).