

Human IL-1 alpha/IL-1A Protein, Ultra Low Endotoxin

Cat. No. IL1-HE00A-UL

Description

Source	Recombinant Human IL-1 alpha/IL-1A Protein is expressed from E.coli without tag. It contains Ser113-Ala271.
Accession	NP_000566.3
Molecular Weight	The protein has a predicted MW of 18 kDa same as Bis-Tris PAGE result.
Endotoxin	Less than 0.01 EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage

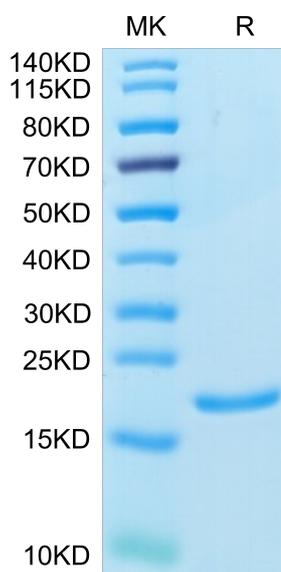
Formulation	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-20 to -80°C for 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 α and IL-1 β 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 β and its functions in human diseases.

Assay Data

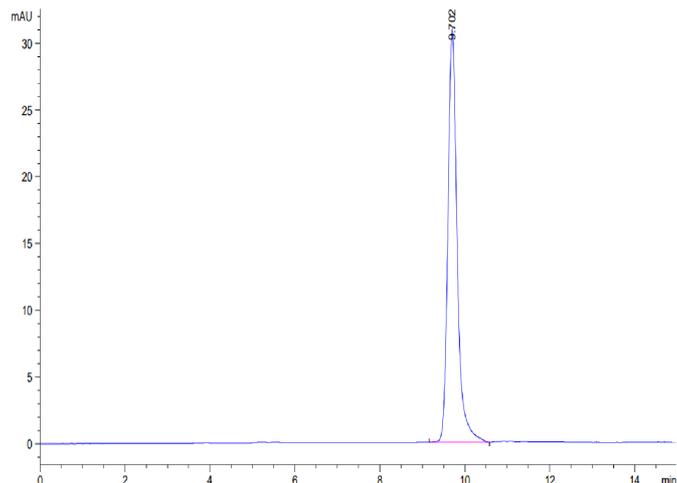
Bis-Tris PAGE



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

SEC-HPLC

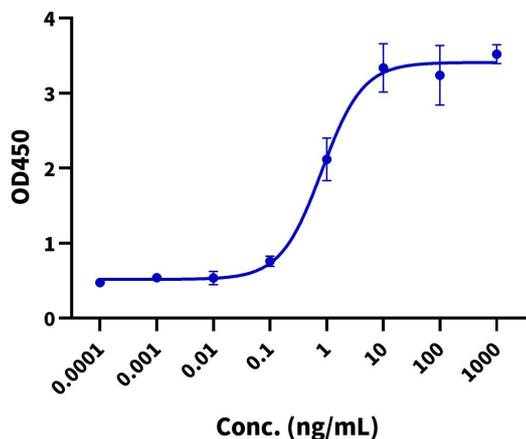
Assay Data



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

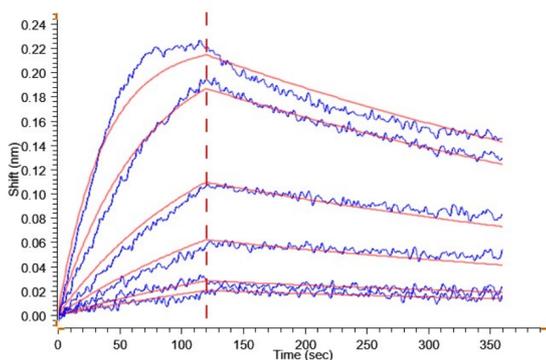
Cell Based Assay

Recombinant Human IL-1 alpha Bioactivity



Measured by its ability to induce Interferon gamma secretion by human natural killer lymphoma NK-92 cells. The ED50 for this effect is typically 0.5-3 ng/mL.

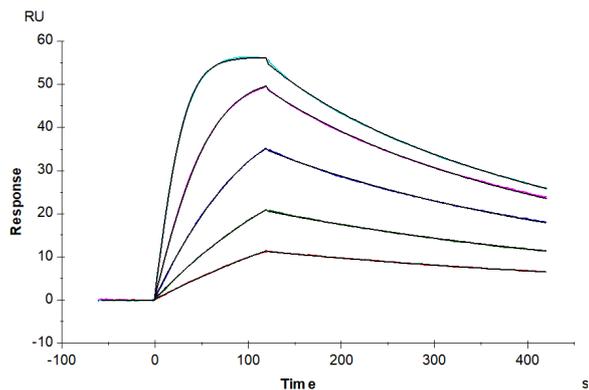
BLI Data



Loaded Human IL-1R1, His Tag (Cat. IL1-HM1R1) on Anti-His-Biosensor can bind Human IL-1 alpha, No Tag with an affinity constant of 0.84 nM as determined in BLI assay .

SPR Data

Assay Data



Human IL-1R1, His Tag captured on CM5 Chip via anti-his antibody can bind Human IL-1 alpha, No tag with an affinity constant of 0.51 nM as determined in SPR assay (Biacore T200).