

Human IL-18 Protein

Cat. No. IL1-HE018



Description

| | |
|-------------------------|--|
| Source | Recombinant Human IL-18 Protein is expressed from E.coli without tag. |
| | It contains Tyr37-Asp193. |
| Accession | Q14116 |
| Molecular Weight | The protein has a predicted MW of 18.2 kDa same as Bis-Tris PAGE result. |
| Endotoxin | Less than 0.1 EU per µg by the LAL method. |
| Purity | > 95% as determined by Bis-Tris PAGE |
| | > 95% as determined by HPLC |

Formulation and Storage

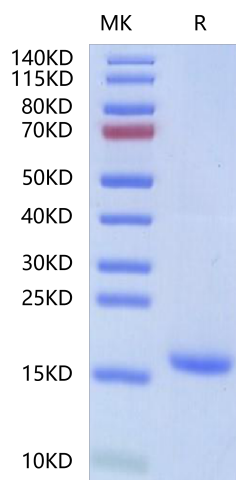
| | |
|-----------------------|---|
| Formulation | Lyophilized from 0.22µm filtered solution in 20mM PB, 250mM NaCl, 50mM L-arginine (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization. |
| Reconstitution | Dissolve the lyophilized protein in distilled water. Please refer to 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

Interleukin (IL)-18 was originally discovered as a factor that enhanced IFN-γ production from anti-CD3-stimulated Th1 cells, especially in the presence of IL-12. Upon stimulation with Ag plus IL-12, naïve T cells develop into IL-18 receptor (IL-18R) expressing Th1 cells, which increase IFN-γ production in response to IL-18 stimulation.

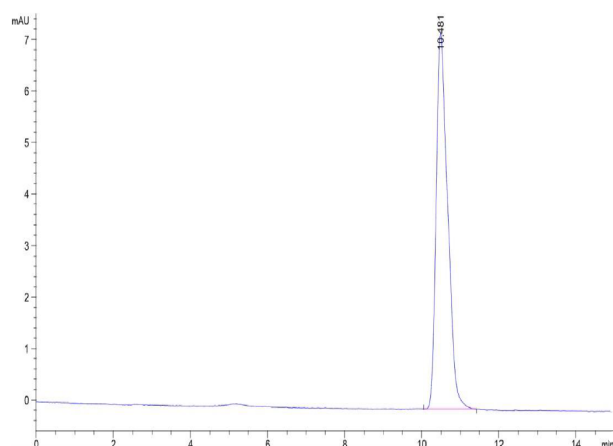
Assay Data

Bis-Tris PAGE



Human IL-18 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC



The purity of Human IL-18 is greater than 95% as determined by SEC-HPLC.

Human IL-18 Protein

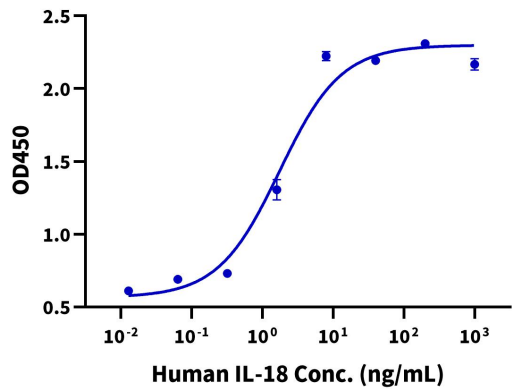
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Assay Data

Cell Based Assay

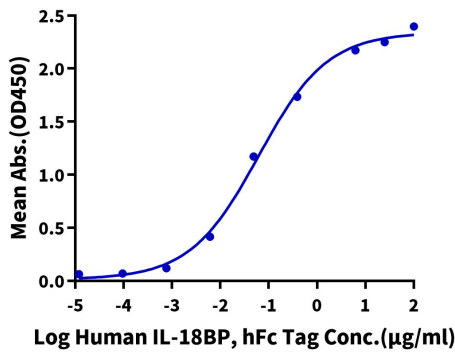
Recombinant Human IL-18 Bioactivity



Measured by its ability to induce Interferon gamma secretion by human natural killer lymphoma NK-92 cells. The ED50 for this effect is 1-5 ng/mL (QC Test).

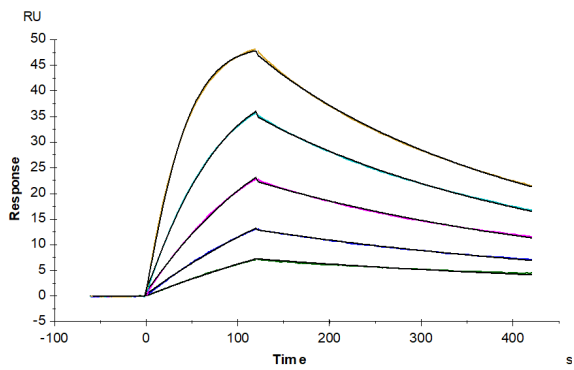
ELISA Data

Human IL-18, No Tag ELISA
0.5µg Human IL-18, No Tag Per Well



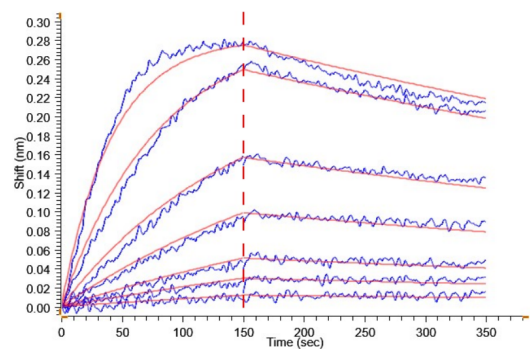
Immobilized Human IL-18 at 5µg/ml (100µl/Well) on the plate. Dose response curve for Human IL-18BP, hFc Tag with the EC50 of 62.0ng/ml determined by ELISA (QC Test).

SPR Data



Human IL-18 R1, His Tag captured on CM5 Chip via anti-his antibody can bind Human IL-18, No Tag with an affinity constant of 2.38 nM as determined in SPR assay (Biacore T200).

BLI Data



Loaded Rhesus macaque IL-18 R1, hFc Tag on ProA-Biosensor, can bind Human IL-18, No Tag with an affinity constant of 2.01 nM as determined in BLI assay (Gator).