

# Human IL-18 Protein, Ultra Low Endotoxin

Cat. No. IL1-HE018-UL

## Description

|                         |  |
|-------------------------|--|
| <b>Source</b>           | Recombinant Human IL-18 Protein is expressed from E.coli without tag.<br>It contains Tyr37-Asp193. |
| <b>Accession</b>        | Q14116-1   |
| <b>Molecular Weight</b> | The protein has a predicted MW of 18.2 kDa same as Bis-Tris PAGE result.                           |
| <b>Endotoxin</b>        | Less than 0.01 EU per µg by the LAL method.  |
| <b>Purity</b>           | > 95% as determined by Bis-Tris PAGE<br>> 95% as determined by HPLC                                |

## Formulation and Storage

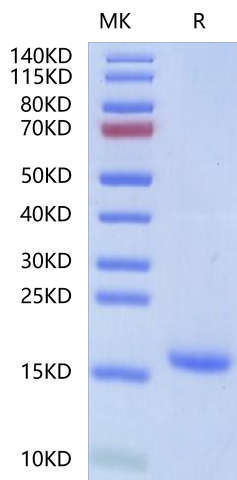
|                       |   |
|-----------------------|---|
| <b>Formulation</b>    | Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.   |
| <b>Reconstitution</b> | Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.   |
| <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

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.

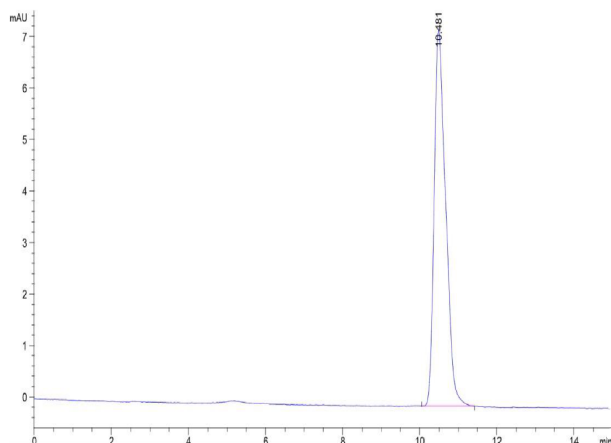
## Assay Data

### Bis-Tris PAGE



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

### SEC-HPLC

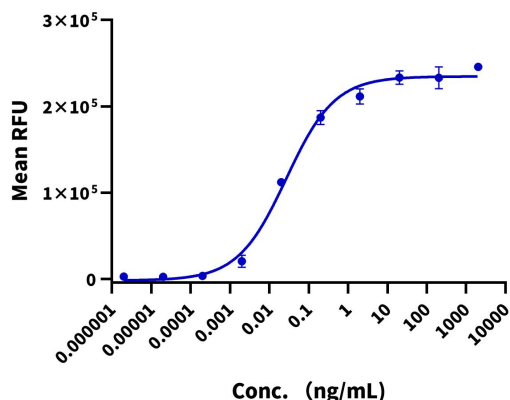


The purity of Human IL-18 is greater than 95% as determined by SEC-HPLC.

Assay Data

Cell Based Assay

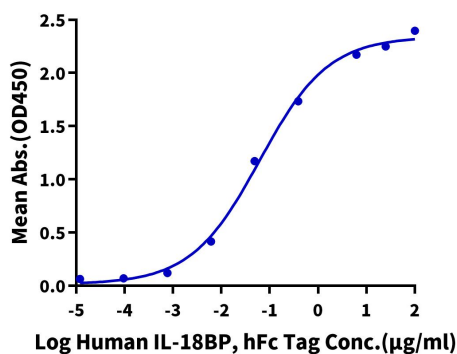
Recombinant Human IL-18 Bioactivity



Measured by a reporter gene assay. The ED50 for this effect is 10-50 pg/mL.

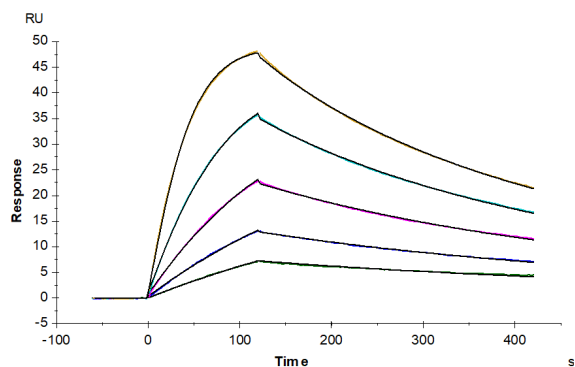
ELISA Data

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



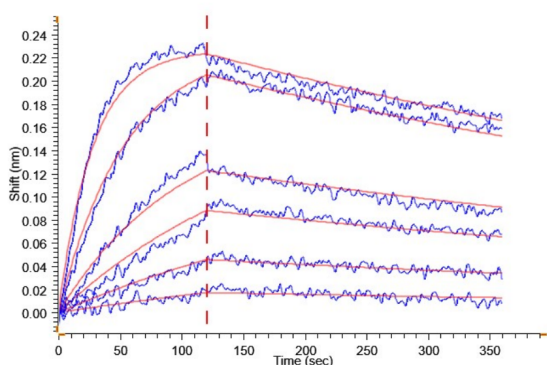
Immobilized Human IL-18 at 5µg/ml (100µl/Well) on the plate. Dose response curve for Human IL-18BP, hFc Tag (Cat. IL8-HM2BP) with the EC50 of 62.0ng/ml determined by ELISA (QC Test).

SPR Data



Human IL-18 R1, His Tag (Cat. IL8-HM4R1) 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 Human IL-18BP, His Tag (Cat. IL8-HM1BP) on Anti-His-Biosensor can bind Human IL-18, No Tag with an affinity constant of 1.80 nM as determined in BLI assay.