



Synonym

IL-18, Interleukin-18, IL18, IL-1 gamma, IGIF, IL1F4, IL-1F4

Source

Human IL-18 Protein, premium grade (IL8-H5114) is expressed from E. coli cells. It contains AA Tyr 37 - Asp 193 (Accession # [Q14116-1](#)).

Human IL-18 Protein, premium grade (IL8-H5114), designed for preclinical stage, has the same activity and performance with GMP Human IL-18 Protein, which enables a seamless transition from preclinical development to clinical phases. Premium Grade product offer a cost efficient alternative of GMP Grade products for the early development phase when safety of raw materials is not top priority. By using Premium Grade products in early development phase, you can transition easily into clinical and commercial phase without need to revalidate the raw materials and modify manufacturing process.

Molecular Characterization

**IL-18(Tyr 37 - Asp 193)
Q14116-1**

This protein carries no "tag".

The protein has a calculated MW of 18.2 kDa. The protein migrates as 16 kDa \pm 3 kDa under reducing (R) condition, and 16 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under non-reducing (NR) condition (SDS-PAGE).

Endotoxin

Less than 0.01 EU per μ g by the LAL method.

Host Cell Protein

<0.5 ng/ μ g of protein tested by ELISA.

Host Cell DNA

<0.02 ng/ μ g of protein tested by qPCR.

Sterility

The sterility testing was performed by membrane filtration method.

Mycoplasma

Negative.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μ m filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

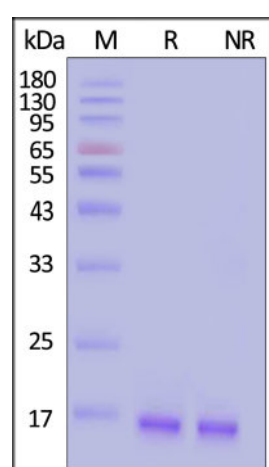
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



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and more!



Human IL-18 Protein, premium grade

Catalog # IL8-H5114

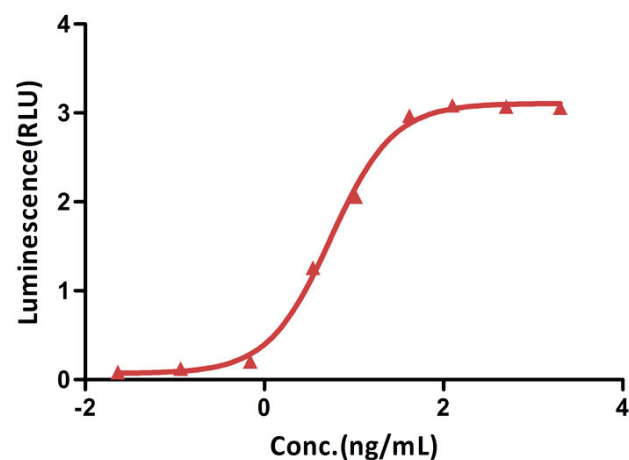


BIOSYSTEMS
Acro

Human IL-18 Protein, premium grade on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

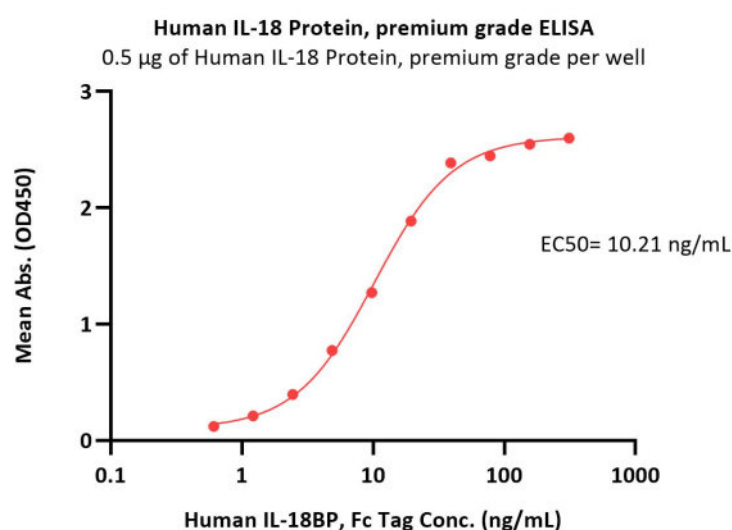
Bioactivity-Bioactivity CELL BASE

Human IL-18, premium grade stimulates secretion of IFN- γ by KG-1



Human IL-18 Protein, premium grade (Cat. No. IL8-H5114) stimulates secretion of IFN- γ by KG-1 cells. The specific activity of Human IL-18 Protein, premium grade is $> 3.00 \times 10^6$ IU/mg, which is calibrated against WHO Reference Reagent Interleukin-18 (Human rDNA derived) (NIBSC code: 03/200) (QC tested).

Bioactivity-ELISA



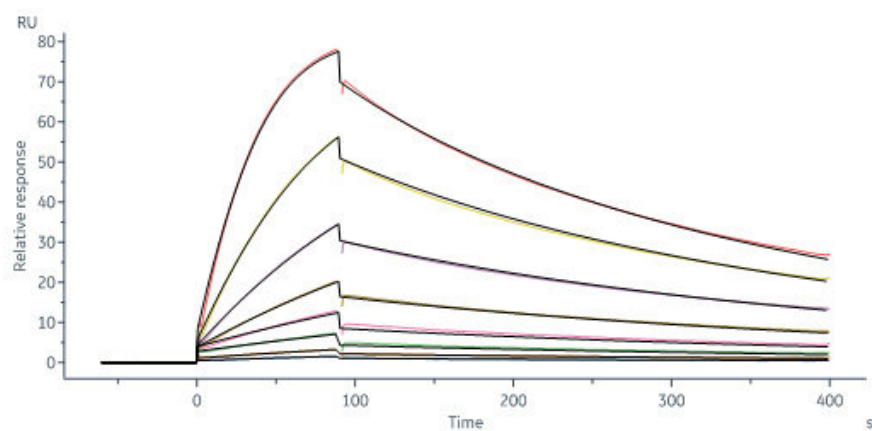
Immobilized Human IL-18 Protein, premium grade (Cat. No. IL8-H5114) at 5 μ g/mL (100 μ L/well) can bind Human IL-18BP, Fc Tag (Cat. No. ILP-H5253) with a linear range of 0.6-20 ng/mL (QC tested).

Bioactivity-SPR

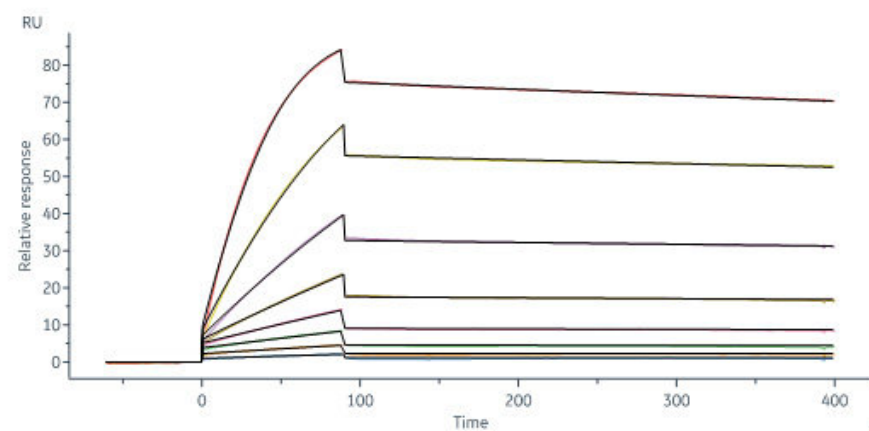
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Biotinylated Human IL-18 R1, Fc, Avitag (Cat. No. IL1-H82F9) captured on Protein A Chip can bind Human IL-18 Protein, premium grade (Cat. No. IL8-H5114) with an affinity constant of 14.2 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).



Human IL-18BP, Fc Tag (Cat. No. ILP-H5253) captured on Protein A Chip can bind Human IL-18 Protein, premium grade (Cat. No. IL8-H5114) with an affinity constant of 0.781 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Interleukin-18 (IL-18) is a potent proinflammatory cytokine that induces interferon-gamma (IFN-gamma) production from Th1 cells, NK cells and activated macrophages, particularly in the presence of IL-12. IL-18 also functions in developmental regulation of T-lymphocyte helper type I cells and in Fas-mediated cytotoxicity. Suppression of IL-18 activity is being investigated for treatment of chronic inflammatory diseases such as Crohn's disease and rheumatoid arthritis. It acts by inducing heterodimerization of the two subunits of its receptor, IL-18RA α and IL-18RB β shows structural similarity to IL-1.

Clinical and Translational Updates

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