

Synonym

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

Source

Human IL-18, Tag Free(IL8-H5113) is expressed from E.coli cells. It contains AA Tyr 37 - Asp 193 (Accession # [Q14116-1](#)).
Predicted N-terminus: Met

Molecular Characterization

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

This protein carries no "tag"
The protein has a calculated MW of 18.3 kDa. The protein migrates as 18 kDa under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 0.1 EU per µg by the LAL method.

Sterility

The sterility testing was performed by membrane filtration method.

Purity

>95% as determined by SDS-PAGE.
>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.
Contact us for customized product form or formulation.

Reconstitution

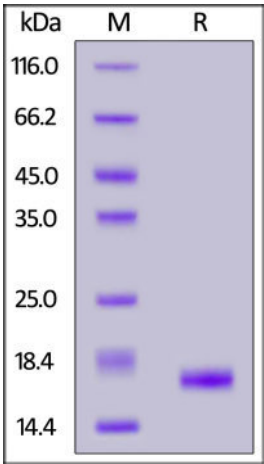
Please see Certificate of Analysis for specific instructions.
For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

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

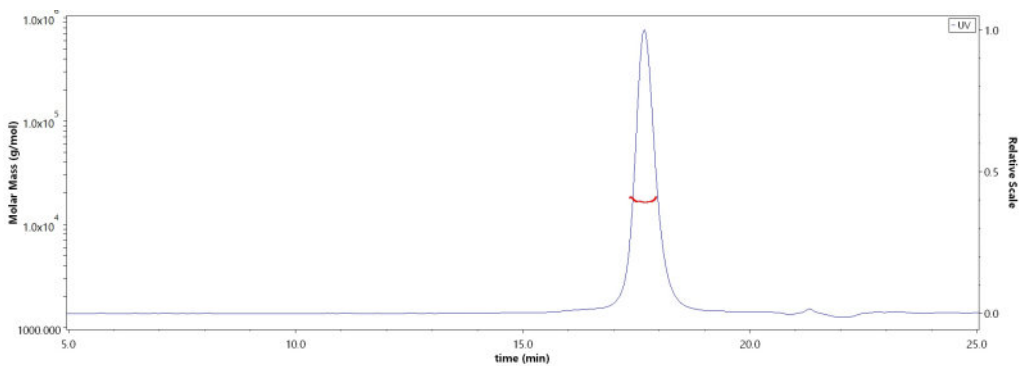
SDS-PAGE



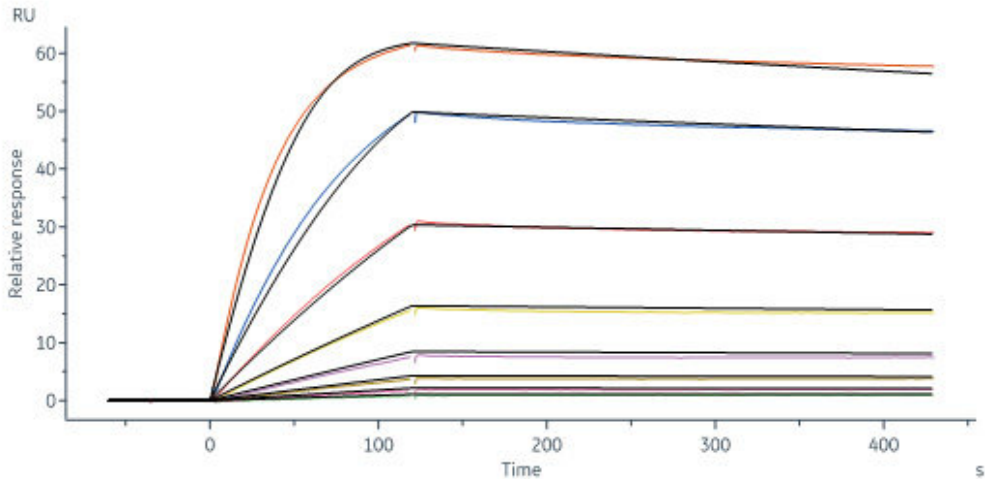
Human IL-18, Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-SPR

SEC-MALS



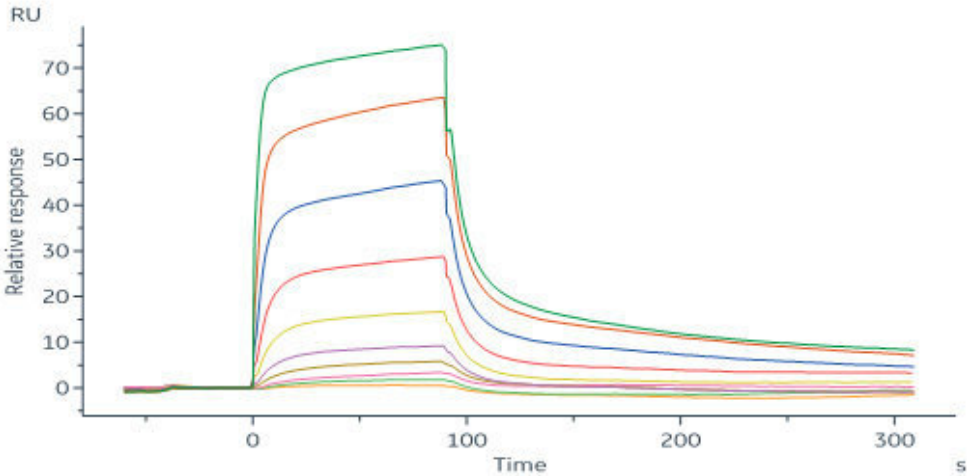
The purity of Human IL-18, Tag Free (Cat. No. IL8-H5113) is more than 90% and the molecular weight of this protein is around 15-21 kDa verified by SEC-MALS.
[Report](#)



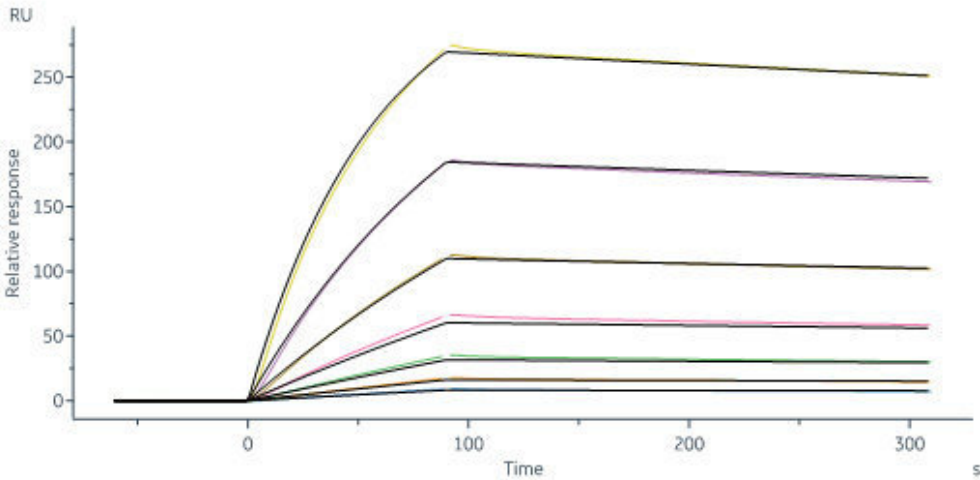
Human IL-18BP, Fc Tag (Cat. No. ILP-H5253) captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind Human IL-18, Tag Free (Cat. No. IL8-H5113) with an affinity constant of 1.71 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

IL-18 SPR

Human IL-18 R1, Fc Tag (Cat. No. IL1-H5259) captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind Human IL-18, Tag Free (Cat. No. IL8-H5113) with an affinity constant of 0.409 μ M as determined in a SPR assay (Biacore 8K) (Routinely tested).

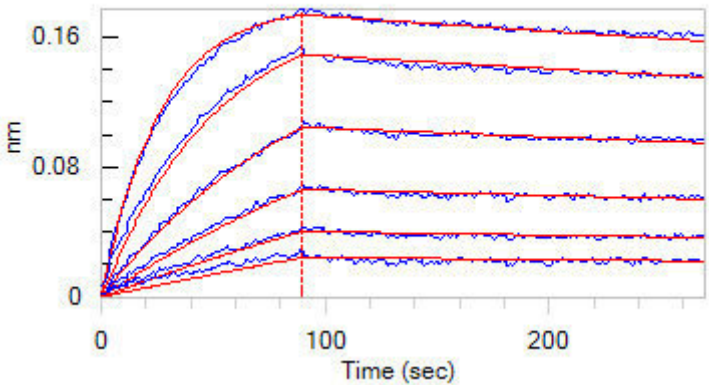


Biotinylated Human IL-18 R1, His,Avitag (Cat. No. IL1-H82E7) captured on Biotin CAP-Series S Sensor Chip can bind Human IL-18, Tag Free (Cat. No. IL8-H5113) with an affinity constant of 1.49 μ M as determined in a SPR assay (Biacore 8K) (Routinely tested).

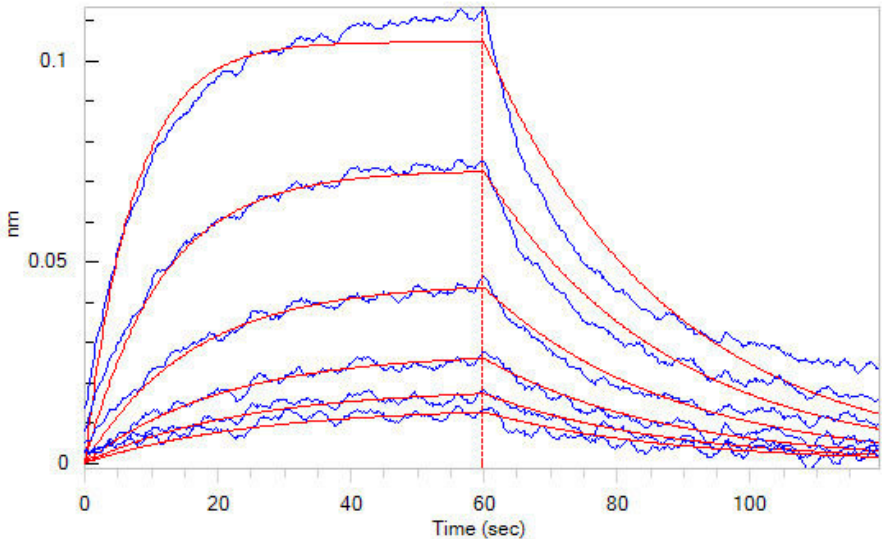


Biotinylated Human IL-18 R1, His,Avitag (Cat. No. IL1-H82E7) captured on Biotin CAP-Series S Sensor Chip can bind Human IL-18, Tag Free (Cat. No. IL8-H5113) (Premixed with Human IL-18 R beta / IL-1 R7, Fc Tag, Cat. No. ILB-H5256) with an affinity constant of 5.87 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Bioactivity-BLI



Loaded Human IL-18BP, Fc Tag (Cat. No. ILP-H5253) on Protein A Biosensor, can bind Human IL-18, Tag Free (Cat. No. IL8-H5113) with an



affinity constant of 8.09 nM as determined in BLI assay (ForteBio Octet Red96e) (QC tested).	Human IL-18 R1, Fc Tag (Cat. No. IL1-H5259) on Protein A Biosensor, can bind Human IL-18, Tag Free (Cat. No. IL8-H5113) with an affinity constant of 179 nM as determined in BLI assay (ForteBio Octet Red96e) (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

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.