Catalog # ILP-H5222



Synonym

IL18BP,IL18BPa,Tadekinig-alfa

Source

Human IL-18BP, His Tag(ILP-H5222) is expressed from human 293 cells (HEK293). It contains AA Thr 31 - Gly 194 (Accession # <u>NP_001138529</u>). Predicted N-terminus: Thr 31

Molecular Characterization

IL-18BP(Thr 31 - Gly 194) NP_001138529 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 18.5 kDa. The protein migrates as 35-45 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μ g by the LAL method.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

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

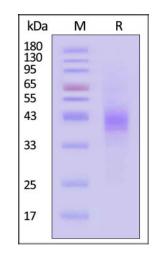
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

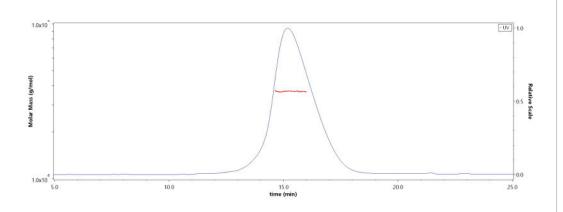
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human IL-18BP, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

SEC-MALS



The purity of Human IL-18BP, His Tag (Cat. No. ILP-H5222) is more than 90% and the molecular weight of this protein is around 32-45 kDa verified by SEC-MALS.



Bioactivity-SPR

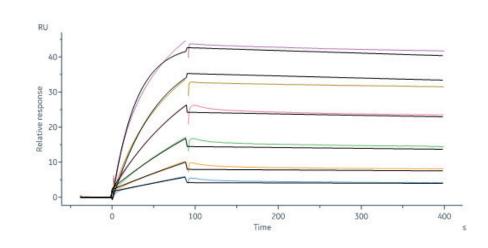






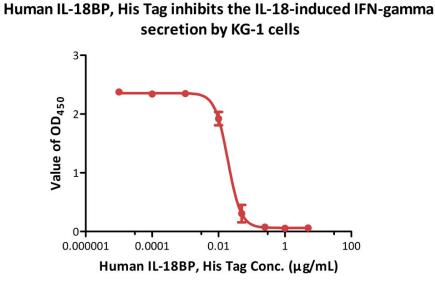


Catalog # ILP-H5222



Human IL-18 Protein, premium grade (Cat. No. IL8-H5114) immobilized on CM5 Chip can bind Human IL-18BP, His Tag (Cat. No. ILP-H5222) with an affinity constant of 0.319 nM as determined in a SPR assay (Biacore 8K) (QC tested).

Bioactivity-Bioactivity CELL BASE



Human IL-18BP, His Tag (Cat. No. ILP-H5222) inhibits the IL-18-induced IFN-gamma secretion by KG-1 cells. The ED50 for this effect is 0.019-0.053 μ g/mL in the presence of 30 ng/mL of Recombinant Human IL-18 (Routinely tested).

Background

Interleukin-18-binding protein (IL18BP) is also known as Tadekinig-alfa, IL18BPa, which functions as an IL18 inhibitor. IL18BP is a secreted protein which contains one Ig-like C2-type (immunoglobulin-like) domain. IL18BP does not have a transmembrane domain and hence is not anchored to the cell membrane. IL18BP is strongly expressed in heart, lung, placenta and spleen. Isoform A of IL18BP binds to IL-18 and inhibits its activity. IL18BP also functions as an inhibitor of the early TH1 cytokine response. IL18BP suppresses the production of IFN-gamma resulting in reduced T-helper type 1 immune responses.

Clinical and Translational Updates



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