

## Synonym

IL18BP,IL18BPa,Tadekinig-alfa

#### Source

Biotinylated Human IL-18BP Protein, His,Avitag(ILP-H82E3) is expressed from human 293 cells (HEK293). It contains AA Thr 31 - Gly 194 (Accession # 095998-2).

Predicted N-terminus: Thr 31

#### **Molecular Characterization**

IL-18BP(Thr 31 - Gly 194) O95998-2



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag<sup>TM</sup>).

The protein has a calculated MW of 21.2 kDa. The protein migrates as 33-55 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Labeling

Biotinylation of this product is performed using Avitag<sup>TM</sup> technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

#### **Protein Ratio**

Passed as determined by the HABA assay / binding ELISA.

#### Endotoxin

Less than 1.0 EU per µg by the LAL method.

## **Purity**

>90% as determined by SDS-PAGE.

#### **Formulation**

Lyophilized from 0.22  $\mu m$  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

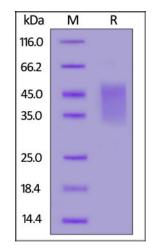
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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



Biotinylated Human IL-18BP Protein, His, Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

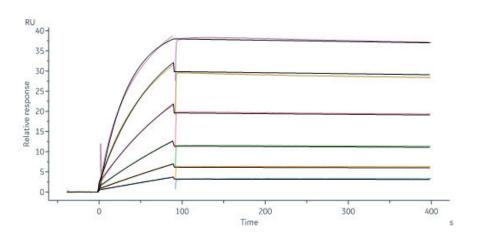
## **Bioactivity-SPR**



# Biotinylated Human IL-18BP Protein, His,Avitag™ (SPR verified)







Human IL-18 Protein, premium grade (Cat. No. IL8-H5114) immobilized on CM5 Chip can bind Biotinylated Human IL-18BP Protein, His,Avitag (Cat. No. ILP-H82E3) with an affinity constant of 0.184 nM as determined in a SPR assay (Biacore 8K) (QC 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**

