

Mouse IL18BP Protein (His Tag)

Catalog Number: 50206-M08H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

Il18bp, IL-18BP, Igfbp, MC54L

Protein Construction:

A DNA sequence encoding mouse IL18BP (NP_034661.1) (Met 1-Ala 193) precursor was expressed with the polyhistide tag at the C-terminus.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio-Activity

Measured by its ability to bind biotinylated Cynomolgus IL18 in functional ELISA.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Ser 29

Molecular Mass:

The recombinant mouse IL18BP comprises 176 amino acids and has a predicted molecular mass of 19.4 kDa. In SDS-PAGE under reducing conditions, rm IL18BP migrates between 35-50 kDa due to different glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

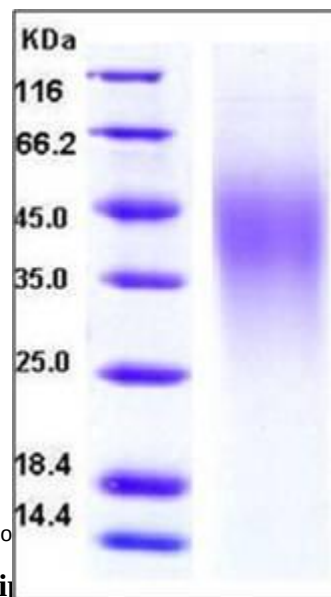
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are available in the product insert.

Protein Description

IL18BP is a constitutively expressed and secreted interleukin 18 (IL18) binding protein (IL18BP) which functions as an IL18 inhibitor. It is naturally occurring and was isolated from the urine of healthy subjects. IL18BP shares many characteristics with soluble cytokine receptors of the IL1 family in that the protein exhibits specificity for IL18. IL18BP belongs to the immunoglobulin-like class of receptors and has limited amino acid sequences with those of the IL1 receptor type II. With a single immunoglobulin (Ig) domain, IL18BP resembles the extracellular segment of cytokine receptors, however, IL18BP is a novel protein distinct from the IL1 and IL18 receptor families and unlike soluble cytokine receptors, IL18BP does not have a transmembrane domain and hence is not anchored to the cell membrane. Molecular modelling identified a large mixed electrostatic and hydrophobic binding site in the immunoglobulin domain of IL18BP, which could account for its high affinity binding to the ligand. These high affinity forms may be ideally suited for blocking IL18 in human disease and because IL18 is an important inducer of interferon gamma (IFNγ), IL18BP suppresses the production of IFNγ resulting in reduced T-helper type 1 immune responses. It is likely that preferential secretion of high affinity functional and non-functional isoforms of IL18BP affect the immune response and the outcome of disease.

References

1. Dinarello, C.A., 2000, Ann Rheum Dis.59 Supply1: i17-20.
2. Ludwiczek, O. et al., 2002, J Clin Immunol. 22 (6): 331-337
3. Li, J.M. et al., 2008, J Vasc Surg. 47 (5): 1048-1057.

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