

# Human IL18BPα Protein (His & Fc Tag)

Catalog Number: 10357-H03H



**Sino Biological Inc.**

Biological Solution Specialist

## General Information

### Gene Name Synonym:

IL18BP, IL18BPα

### Protein Construction:

A DNA sequence encoding the N-terminal domain (Met 1-Gly 192) of human IL 18BPα (NP\_001034748.1) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

**Source:** Human

**Expression Host:** Human Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Bio-Activity

**Measured by its ability to bind 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:** Thr 29

### Molecular Mass:

The recombinant human IL18BPα/Fc is a disulfide-linked homodimeric protein after removal of the signal peptide. The reduced monomer consists of 411 amino acids and has a predicted molecular mass of 44.5 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh IL18BPα/Fc monomer is approximately 70-75 kDa due to glycosylation.

### Formulation:

Lyophilized from sterile 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5

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.

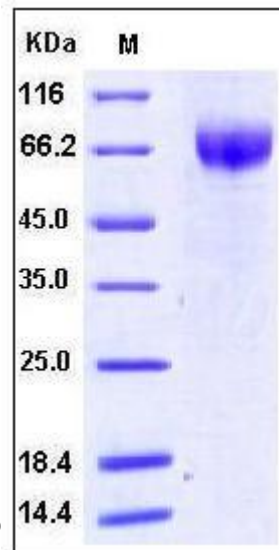
## Usage Guide

### 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

th the products.

## Protein Description

Interleukin 18 binding protein (IL18 BP) is a secreted glycoprotein which antagonizes the activity of the proinflammatory cytokine IL18 by binding to IL18 and blocking its biological activity. At least four isoforms differing in affinity for IL18 are produced from alternative splicing, and IL18 BP isoform α contains one immunoglobulin (Ig)-like C2-type domain. IL18 BPα binds IL18 with high affinity, prevents the binding of IL18 to its receptor, and thus inhibits the production of IFN-γ, IL8, and activation of NF-κB, resulting in reduced T-helper type 1 (Th1) immune responses. IL18 BPα is constitutively expressed and secreted in mononuclear cells, and its expression can be induced and enhanced through the IFN-γ-mediated pathway. The identified IFN-γ/IL18 BPα negative feedback loop probably plays a key role in the modulation of both innate and adaptive immunity. A severe IL18/IL18 BP imbalance is associated with hemophagocytic syndrome (HPS) characterized by an uncontrolled activation of Th-1 lymphocytes and macrophages. In addition, IL18 BPα is suggested to have a possible antimetastatic benefit, since IL18 plays a significant role in tumor hepatic metastasis.

## References

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3. Veenstra, K.G. et al., 2002, J. Immunol. 168: 2282-2287.
4. Mazodier, K. et al., 2005, Blood. 106: 3483-3489.
5. Carrascal, M.T. et al., 2003, Cancer. Res. 63: 491-497.

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