

Human IL18BPα Protein (His Tag)

Catalog Number: 10357-H08H



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 IL18BPα (NP_001034748.1) was fused with the polyhistidine tag 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 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: Thr 29

Molecular Mass:

The secreted recombinant human IL18BPα consists of 175 amino acids after removal of the signal peptide and has a predicted molecular mass of 19 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh IL18BPα is approximately 30-45 kDa due to 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.

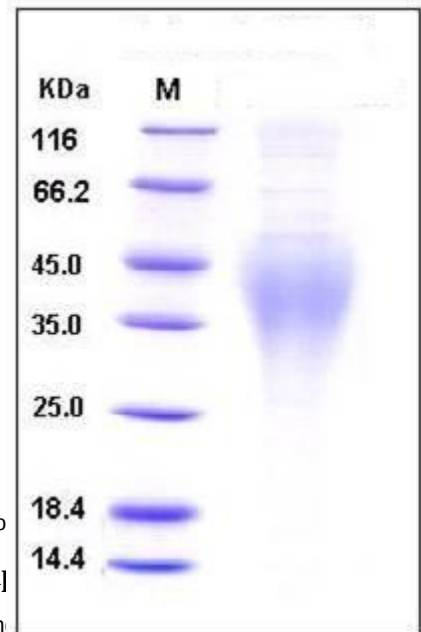
Usage Guide

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

Protein Description

Interleukin 18 binding protein (IL18BPα) is a protein in 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

1. Aizawa, Y. et al., 1999, FEBS. Lett. 445: 338-342.
2. Kim, S.H. et al., 2000, Proc. Natl. Acad. Sci. USA 97: 1190-1195.
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.

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>