Mouse IL-18R1 Protein (His & Fc Tag)

Catalog Number: **50094-M03H**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

CD218a; CDw218a; IL-1Rrp; IL18RA; IL1RRP; Il18ralpha; Il1rrp

Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1-Gly 326) of mouse IL18R1 (NP_032391.1) precursor was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 98 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to bind Cynomolgus IL-18 (Cat:90011-C07E) in a 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 ℃

Predicted N terminal: Lys 20

Molecular Mass:

The recombinant mouse IL18R1/Fc is a disulfide-linked homodimer after removal of the signal peptide. The reduced monomer consists of 555 amino acids and has a predicted molecular mass of 63.5 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rm IL18R1/Fc monomer is approximately 95-105 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 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:

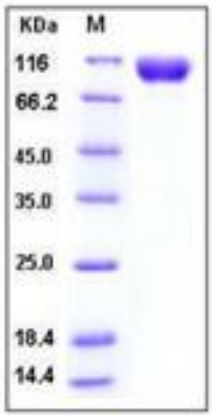
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Interleukin-18 receptor 1 (IL18R1) also known as CD218 antigen-like family member A, CDw218a, IL1 receptor-related protein and CD218a, is an interleukin receptor of the immunoglobulin superfamily. IL18R1 is found expressed in lung, leukocytes, spleen, liver, thymus, prostate, small intestine, colon, placenta, and heart, and is absent from brain, skeletal muscle, pancreas, and kidney. High level of expression is found in Hodgkin disease cell lines. This receptor is specifically binds interleukin 18 (IL18), and is essential for IL18 mediated signal transduction. IL18R1 contains 3 Ig-like C2-type (immunoglobulin-like) domains and 1 TIR domain. It is a single-pass type I membrane protein. IFN-alpha and IL12 are reported to induce the expression of this receptor in NK and T cells. The increased expression of IL18R1 may contribute pathogenically to disease and is therefore a potential therapeutic target. The absence of a genetic association in the IL18R1 gene itself suggests regulation from other parts of the genome, or as part of the inflammatory cascade in multiple sclerosis without a prime genetic cause.

References

1.Nadif R, *et al.*. (2006) IL18 and IL18R1 polymorphisms, lung CT and fibrosis: A longitudinal study in coal miners. Eur Respir J. 28(6): 1100-5.
2.Haralambieva IH, *et al.*. (2011) Common SNPs/haplotypes in IL18R1 and IL18 genes are associated with variations in hum oral immunity to smallpox vaccination in Caucasians and African Americans. J Infect Dis. 204(3): 433-41.
3.Hulin-Curtis SL, *et al.*. (2012) Evaluation of IL18 and IL18R1 polymorphisms: genetic susceptibility to knee osteoarthritis. Int J Immunogenet. 39(2): 106-9.