Human IL-1RAcP / IL-1R3 Protein (His & Fc Tag)

Catalog Number: **10121-H03H**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

C3orf13; IL-1RAcP; IL1R3; 6430709H04Rik; AI255955; AV239853; IL-1RAcP

Protein Construction:

A DNA sequence encoding the human IL1R3 (NP_002173.1) extracellular domain (Met 1-Glu 359) 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:

1. Measured by its ability to bind with biotinylated human IL1R2-His (Cat:10111-H08H)in a functional ELISA. 2. Immobilized human IL1R3-Fch at 10 μg/mL (100ul/well) can bind biotinylated human IL1B-His (Cat:10139-H07E). The EC_{50} of biotinylated human IL1B-His (Cat:10139-H07E) is 0.11-0.25 μg/mL.

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: Ser 21

Molecular Mass:

The recombinant human IL1R3/Fc is a disulfide-linked homodimer. The reduced monomer consists of 586 amino acids and has a predicted molecular mass of 67.3 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh IL1R3/Fc monomer is approximately 75-85 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:

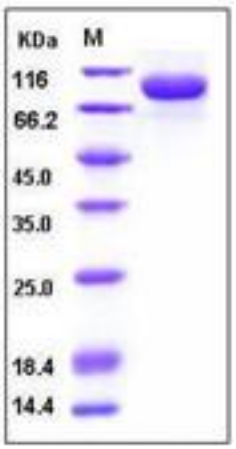
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Interleukin-1 receptor accessory protein (IL-1RAcP) also known as Interleukin-1 receptor member 3 (IL-1R3) is a a cytokine receptor which binds interleukin 1. The IL-1 receptor accessory protein (IL1RAP) is a transmembrane protein that interacts with IL-1R and is required for IL-1 signal transduction. Interleukin 1 induces synthesis of acute phase and proinflammatory proteins during infection, tissue damage, or stress, by forming a complex at the cell membrane with an interleukin 1 receptor and an accessory protein. IL-1RAcP/IL-1R3 is a necessary part of the interleukin 1 receptor complex which initiates signalling events that result in the activation of interleukin 1-responsive genes. Alternative splicing of this gene results in two transcript variants encoding two different isoforms, one membrane-bound and one soluble. The ratio of soluble to membrane-bound forms increases during acute-phase induction or stress. IL-1RAcP/IL-1R3 mediates interleukin-1-dependent activation of NF-kappa-B. Isoform 1 is part of the membrane-bound form of the IL-1 receptor. Signaling involves formation of a ternary complex containing IL1R1, TOLLIP, MYD88, and IRAK1 or IRAK2. Isoform 2 modulates the response to interleukins by associating with soluble IL1R1 and enhancing interleukin-binding to the decoy receptor.

References

1.Goldbach-Mansky R, *et al*. (2009) Autoinflammation: the prominent role of IL-1 in monogenic autoinflammatory diseases and implications for common illnesses. J Allergy Clin Immunol. 124(6): 1141-9.
2.Johnston A, *et al*. (2011) IL-1F5, -F6, -F8, and -F9: a novel IL-1 family signaling system that is active in psoriasis and promotes keratinocyte antimicrobial peptide expression. J Immunol. 186(4): 2613-22.
3.Ozaki K, *et al*. (2001) Effect of tumor weight and tube feeding on TNF-alpha and IL-1beta mRNA expression in the brain of mice. JPEN J Parenter Enteral Nutr. 25(6): 317-22.