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

Catalog Number: **10121-H08H**

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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 expressed, fused with the a C-terminal polyhistidine tag.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 98 % as determined by SDS-PAGE

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 consists of 350 amino acids and has a predicted molecular mass of 40.7 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhIL1R3 is approximately 50-55 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:

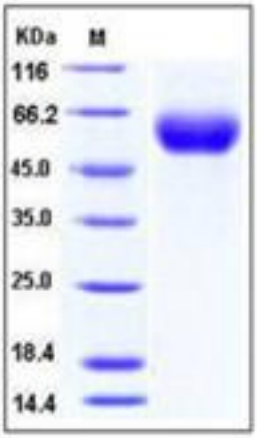
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.