Mouse IL-1RAcP / IL-1R3 Protein (ECD, His Tag)

Catalog Number: **52657-M08H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

6430709H04Rik; AI255955; AV239853; IL-1RAcP

Protein Construction:

A DNA sequence encoding the mouse Il1rap (NP_598864.1) (Met1-Lys350) was expressed with a polyhistidine tag at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: ≥ 95 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC.

Endotoxin:

< 1.0 EU per μg protein as determined by the LAL method.

Predicted N terminal: Ser 21

Molecular Mass:

The recombinant mouse Il1rap consists of 341 amino acids and predicts a molecular mass of 39.7 kDa. It migrates as an approximately 53.1 kDa band in SDS-PAGE under reducing conditions.

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

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

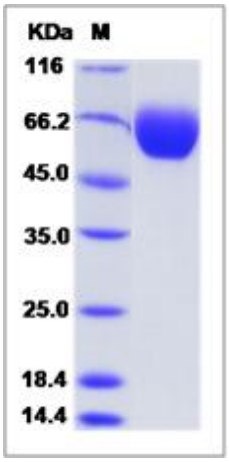
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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 cytokine receptor that 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 the synthesis of the 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 signaling 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 the 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.