Human IL1R1 / CD121a Protein (His Tag)

Catalog Number: 10126-H08H

General Information

Gene Name Synonym:
CD121A; D2S1473; IL-1 Ri; IL-1R-alpha; IL-1R1; IL1R; IL1RA; P80

Protein Construction:
A DNA sequence encoding the extracellular domain of human IL1R1 (NP_000868.1) (Met 1-Thr 332) was expressed with a fused polyhistidine tag at C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio Activity:
Measured by its ability to bind human IL1-beta 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 °C

Predicted N terminal: Leu 18

Molecular Mass:
The soluble form of recombinant human IL1R1 consists of 327 amino acids after removal of the signal peptide and has a predicted molecular mass of 37.7 kDa. In SDS-PAGE under reducing conditions, it migrates with an apparent molecular mass of 55-60 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°C to -80°C 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, type I (IL-1R1) also known as CD121a (Cluster of Differentiation 121a), is an interleukin receptor. IL-1R1/CD121a is a cytokine receptor that belongs to the interleukin 1 receptor family. This protein is a receptor for interleukin alpha (IL1A), interleukin beta (IL1B), and interleukin 1 receptor, type I (IL1R1/IL1RA). IL-1R1/CD121a is an important mediator involved in many cytokine induced immune and inflammatory responses. This protein has been characterized by pharmacological and molecular techniques in the mouse brain. The spindleshaped astrocytes enclose the wound, separating the healthy from damaged neural tissue. The shape change and subsequent repair processes are IL-1β activity-dependent, acting through the IL-1 type 1 receptor (IL-1R1), as co-application of the IL-1type 1 receptor antagonist protein (IL-1ra) blocks IL-1β induced effects. In the spleen, a slight increase in IL-1R AcP and IL-1R1 was observed during the first hours following LPS stimulation. In conclusion, IL-1R AcP mRNA is expressed in the brain and in other tissues where IL-1R1/CD121a transcripts are found. However, the regulation of its expression is distinct from IL-1R1/CD121a. The high level of expression and the lack of regulation of IL-1R AcP transcripts in the brain under inflammatory conditions suggest that the protein might be constitutively expressed in excess.

References