

Canine IL1R2 / IL1RB Protein (Fc Tag)

Catalog Number: 70093-D02H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

CD121b; CDw121b; IL-1R-2; IL-1RT-2; IL-1RT2; IL1R2c; IL1RB; CD121b; IL1r-2

Protein Construction:

A DNA sequence encoding the canine IL1R2 (E2RKW1) (Met1-Glu343) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Canine

Expression Host: Human Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA. Immobilized Canine IL1R2-Fc3 at 10 µg/ml (100 µl/well) can bind biotinylated human IL1B-His (Cat:10139-H07E). The EC₅₀ of biotinylated human IL1B-His (Cat:10139-H07E) is 0.08-0.2 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 °C

Predicted N terminal: Phe 14

Molecular Mass:

The recombinant canine IL1R2/Fc is a disulfide-linked homodimer. The reduced monomer comprises 571 amino acids and has a predicted molecular mass of 64.8 kDa. The apparent molecular mass of the protein is approximately 65-70 kDa 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

Storage:

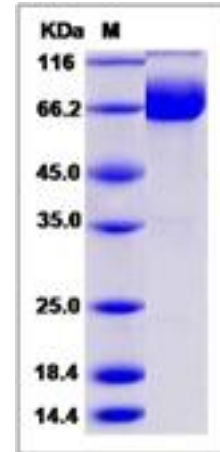
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Interleukin 1 receptor, type II (IL1R2) also known as CD121b (Cluster of Differentiation 121b) is a cytokine receptor that belongs to the interleukin-1 receptor family. This protein binds interleukin alpha (IL1A), interleukin beta (IL1B), and interleukin 1 receptor, type I (IL1R1/IL1RA), and acts as a decoy receptor that inhibits the activity of its ligands. The pleiotropic cytokine IL1 is produced to regulate development and maintenance of the inflammatory responses, and binds to specific plasma membrane receptors on cells. Two distinct types of IL1 receptors which are able to bind IL1 specifically have been identified, designated as IL1RI (IL1RA) and IL1RII (IL1RB). IL1R1 contributes to IL-1 signaling, whereas the IL-1R2/CD121b has no signaling property and acts as a decoy for IL-1. IL-1R2/CD121b structurally consisting of a ligand binding portion comprised of three Ig-like domains, a single transmembrane region, and a short cytoplasmic domain, is expressed in a variety of cell types including B lymphocytes, neutrophils, monocytes, large granular leukocytes and endothelial cells. Interleukin 4 (IL4) is reported to antagonize the activity of interleukin 1 by inducing the expression and release of this cytokine.

References

1. Cannon JG, *et al.* (1997) Interleukin-1 beta, interleukin-1 receptor antagonist, and soluble interleukin-1 receptor type II secretion in chronic fatigue syndrome. *J Clin Immunol.* 17 (3): 253-61.
2. Liu C, *et al.* (1996) Cloning and characterization of an alternatively processed human type II interleukin-1 receptor mRNA. *J Biol Chem.* 271 (34): 20965-72.
3. Van der Poll T, *et al.* (1997) Antiinflammatory cytokine responses during clinical sepsis and experimental endotoxemia: sequential measurements of plasma soluble interleukin (IL)-1 receptor type II, IL-10, and IL-13. *J Infect Dis.* 175 (1): 118-22.

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