

# Human IL1R2 / IL1RB / CD121b Protein

Catalog Number: 10111-HCCH



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

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

### Protein Construction:

A DNA sequence encoding the human IL1R2 (NP\_004624.1) (Met 1-Glu 343) was expressed with five amino acids (DDDDK) at the C-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Bio Activity:

**Immobilized human IL1R2 at 10 µg/ml (100 µl/well) can bind biotinylated human IL1B-His (cat:10139-H07E), The EC<sub>50</sub> of biotinylated human IL1B-His (cat:10139-H07E) is 0.14-0.34 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 human IL1R2 consists of 336 amino acids and predicts a molecular mass of 38.4 KDa. It migrates as an approximately 49 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

### Storage:

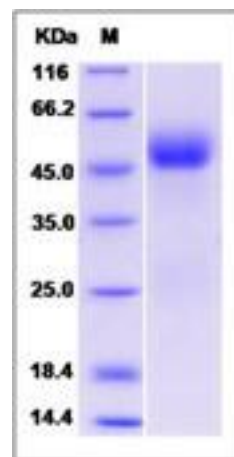
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**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.

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

For US Customer: Fax: 267-657-0217 ● Tel: 215-583-7898

Global Customer: Fax :+86-10-5862-8288 ● Tel:+86-400-890-9989 ● <http://www.sinobiological.com>