Recombinant Human IL1R2/CD121b Protein

Catalog Number: PKSH031864

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

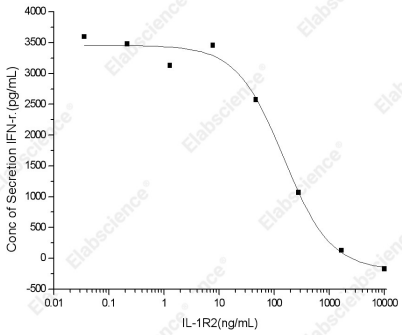
Description

Species	Human
Source	HEK293 Cells-derived Human IL1R2/CD121b protein Met 1-Glu 343
Calculated MW	38.4 kDa
Observed MW	49 kDa
Accession	NP_004624.1
Bio-activity	Immobilized human IL1R2 at 10 μg/ml (100 μl/well) can bind biotinylated human IL1B-His, The EC_{50} of biotinylated human IL1B-His is 0.14-0.34 μg/ml.

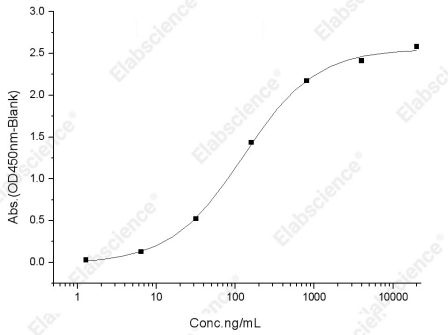
Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



Measured by its ability to inhibit Interferon gamma secretion by human natural killer lymphoma NK-92 cells in the presence of 500 pg/mL IL1b. The EC_{50} for this effect is typically 50-250 ng/mL.



Measured by its binding ability in a functional ELISA. Immobilized Human IL1R2 (Cat: PKSH031864) at 2 μg/ml (100 μl/well) can bind Human IL-1 beta His (Cat: PKSH031840), biotinylated, the EC_{50} of IL-1 beta His, biotinylated is 70-260 ng/mL.

Background

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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.

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