

Recombinant Human IL-1R1/CD121a Protein

Catalog No.: RP01036 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	3554	P14778

Tags

C-His

Synonyms

IL1R1;CD121A;D2S1473;IL-1R-alpha;IL1R;IL1RA;P80

Product Information

Source	Purification
HEK293 cells	≥ 95 % as determined by SDS-PAGE.

Calculated MW	Observed MW
36.70 kDa	Approximately 55 kDa

Endotoxin

< 0.1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

Interleukin 1 receptor, type I (IL-1R1) also known as CD121a (Cluster of Differentiation 121a), is an interleukin receptor. The protein encoded by this gene is a cytokine receptor that belongs to the interleukin-1 receptor family. This protein is a receptor for interleukin 1 alpha (IL1A), interleukin 1 beta (IL1B), and interleukin 1 receptor antagonist (IL1RA). 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-1 type 1 receptor antagonist protein (IL-1ra) blocks IL-1β induced effects. This gene along with interleukin 1 receptor, type II (IL1R2), interleukin 1 receptor-like 2 (IL1RL2), and interleukin 1 receptor-like 1 (IL1RL1) form a cytokine receptor gene cluster in a region mapped to chromosome 2q12. It has been suggested that the Type II receptor, either as the membrane-bound or as the soluble form, serves as a decoy for IL-1 and inhibits IL-1 action by blocking the binding of IL-1 to the signaling Type I receptor complex. Recombinant IL-1 soluble receptor Type I is a potent antagonist of IL-1 action.

Basic Information

Description

Recombinant Human IL-1R1/CD121a Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Asp21-Thr332) of human IL1R1 (Accession #NP_000868.1) fused with a 6×His tag at the C-terminus.

Bio-Activity

1. Measured by its binding ability in a functional ELISA. Immobilized Recombinant Human IL1RA at 5 μg/mL (100 μL/well) can bind Recombinant Human IL1R1 with a linear range of 63-252 ng/mL. 2. Measured by its binding ability in a functional ELISA. Immobilized Human IL-1 beta (Catalog: RP00002) at 10 μg/mL (100 μL/well) can bind Biotinylated Human IL-1R1 (Catalog: RP01036) with a linear range of 0.002-1 μg/mL.

Shipping

Lyophilized proteins are shipped at ambient temperature. Liquid proteins are shipped at frozen temperature with dry ice. Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

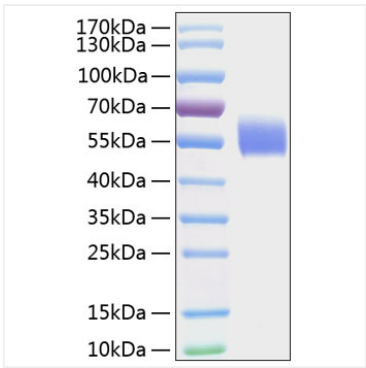
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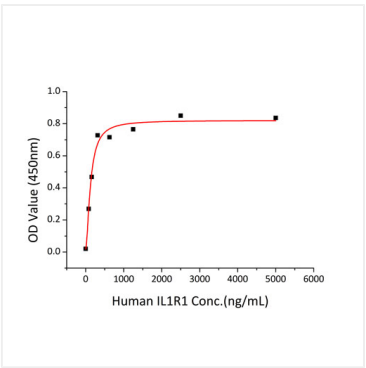
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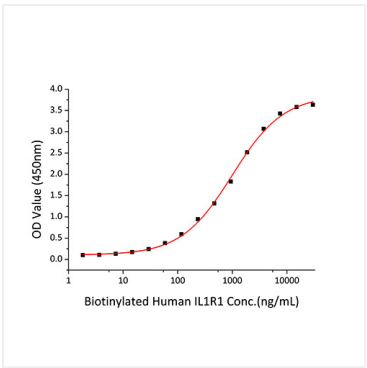
Validation Data



Recombinant Human IL-1R1/CD121a Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Immobilized Recombinant Human IL1RA at 5µg/mL (100 µL/well) can bind Recombinant Human IL1R1 with a linear range of 63-252 ng/mL.



Immobilized Human IL-1 beta (Catalog: RP00002) at 10 µg/mL (100 µL/well) can bind Biotinylated Human IL-1R1 (Catalog: RP01036) with a linear range of 0.002-1 µg/mL.