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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 stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

400-999-6126

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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-1type 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
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ 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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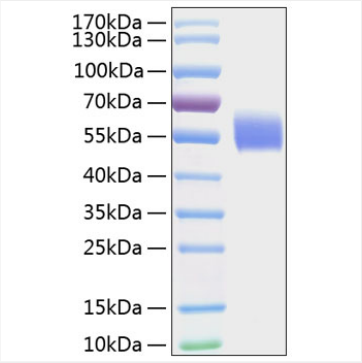
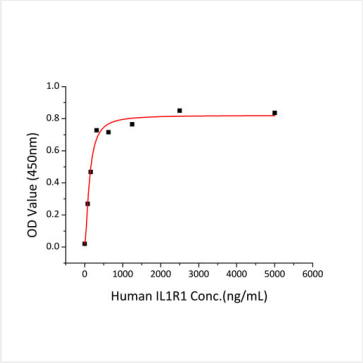
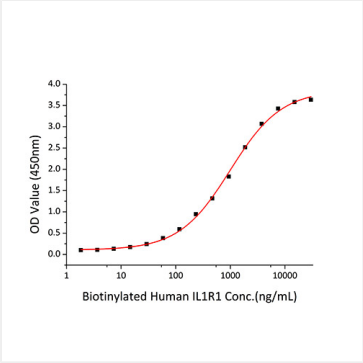
Validation Data



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.

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