

Recombinant Human IL-1R1/CD121a Protein

Catalog No.: RP00453 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	3554	P14778

Tags

C-His

Synonyms

IL-1R-1; IL-1RT1; IL-1R-alpha; CD121a;
IL-1 RI; IL1R; IL1RI; IL-1RI; p80; D2S1473;
IL1RA

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE > 95% by HPLC

Calculated MW	Observed MW
37 kDa	55-68 kDa

Endotoxin

< 1 EU/μg of the protein by LAL method

Formulation

Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

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.

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Background

Interleukin 1 (IL-1) has long been known for its pleiotropic effects on inflammation that plays a complex, and sometimes contrasting, role in different stages of cancer development. IL-1R1 is the main receptor for both ligands and is expressed by various cell types, including innate and adaptive immune cell types, epithelial cells, endothelial cells, adipocytes, chondrocytes, fibroblasts, etc. IL-1 and IL-1R1 receptor interaction leads to a set of common signaling pathways, mainly the NF-κB and MAP kinase pathways, as a result of complex positive and negative regulations.

Basic Information

Description

Recombinant Human IL-1R1/ CD121a Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Leu18-Thr332) of Human IL-1R1/ CD121a (Accession #P14778) fused with a C-His tag at the C-terminus.

Bio-Activity

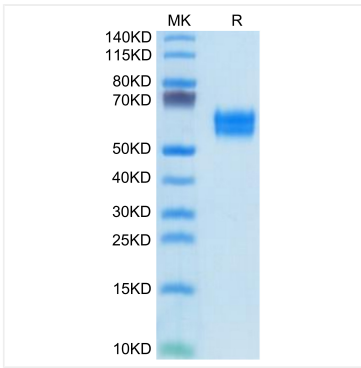
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

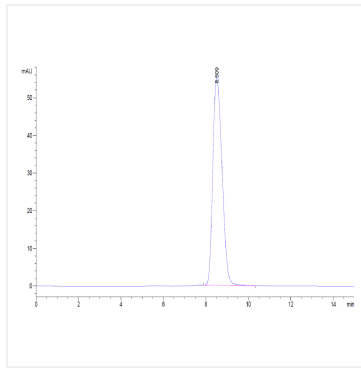
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

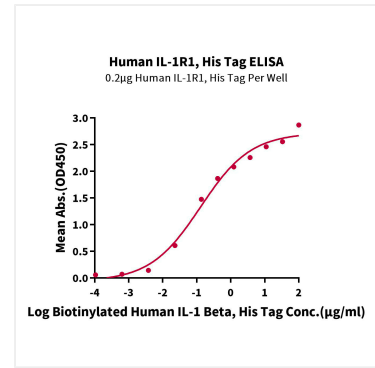
Validation Data



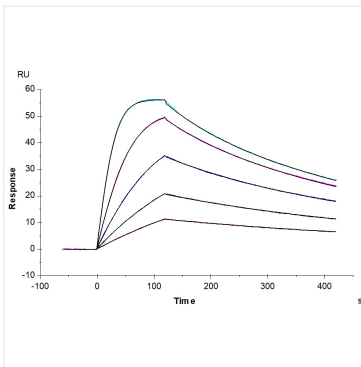
Human IL-1R1 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.



The purity of Human IL-1R1 is greater than 95% as determined by SEC-HPLC.



Immobilized Human IL-1R1, His Tag at 2 µg/mL (100 µL/well) on the plate. Dose response curve for Biotinylated Human IL-1 Beta, His Tag with the EC_{50} of 0.13 µg/mL determined by ELISA (QC Test).



Human IL-1R1, His Tag captured on CM5 Chip via anti-his antibody can bind Human IL-1 alpha, No tag with an affinity constant of 0.51 nM as determined in SPR assay (Biacore T200).