

# Recombinant Human IL1R1/CD121a Protein (Fc Tag)

Catalog Number:PKSH031849



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

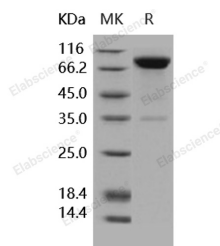
## Description

<b>Synonyms</b>	CD121A;D2S1473;IL-1 RI;IL-1R-alpha;IL-1R1;IL1R;IL1RA;P80;Interleukin-1 receptor type 1;IL-1R-1;IL-1RT-1;IL-1RT1;CD121 antigen-like family member A;Interleukin-1 receptor alpha;IL-1R-alpha
<b>Species</b>	Human
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Met 1-Thr 332
<b>Accession</b>	NP_000868.1
<b>Calculated Molecular Weight</b>	63.0 kDa
<b>Observed molecular weight</b>	80-90 kDa
<b>Tag</b>	C-hFc
<b>Bioactivity</b>	1. Immobilized human IL1-beta at 20 µg/ml (100 µl/well) can bind human IL1R1 Fc chimera with a linear ranger of 6. 4-160 ng/ml. 2. Immobilized human IL1B-his at 10 µg/mL (100 µl/well) can bind human IL1R1-Fc. The EC50 of human IL1R1-Fc is 0.198 µg/mL.

## Properties

<b>Purity</b>	> 90 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



> 90 % as determined by reducing SDS-PAGE.

## Background

Interleukin 1 receptor, type I (IL-1R1) also known as CD121a (Cluster of Differentiation 121a), is an interleukin receptor. IL-1R1/CD121a is a cytokine receptor that belongs to the interleukin 1 receptor family. This protein is a

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receptor for interleukin alpha (IL1A), interleukin beta (IL1B), and interleukin 1 receptor, type I (IL1R1/IL1RA). IL-1R1/CD121a is an important mediator involved in many cytokine induced immune and inflammatory responses. This protein has been characterized by pharmacological and molecular techniques in the mouse brain. The spindle-shaped astrocytes enclose the wound, separating the healthy from damaged neural tissue. The shape change and subsequent repair processes are IL-1 $\beta$  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-1 $\beta$  induced effects. In the spleen, a slight increase in IL-1R AcP and IL-1R1 was observed during the first hours following LPS stimulation. In conclusion, IL-1R AcP mRNA is expressed in the brain and in other tissues where IL-1R1/CD121a transcripts are found. However, the regulation of its expression is distinct from IL-1R1/CD121a. The high level of expression and the lack of regulation of IL-1R AcP transcripts in the brain under inflammatory conditions suggest that the protein might be constitutively expressed in excess.

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