

## Recombinant Rat IL1R1/CD121a Protein (His &Fc Tag)

**Catalog Number:** PKSR030395

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

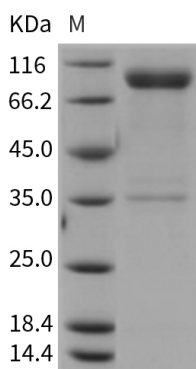
### Description

|                      |   |
|----------------------|---|
| <b>Species</b>       | Rat   |
| <b>Source</b>        | HEK293 Cells-derived Rat IL1R1/CD121a protein Met 1-Lys 352, with an C-terminal His & Fc  |
| <b>Calculated MW</b> | 64.6 kDa  |
| <b>Observed MW</b>   | 90-95 kDa   |
| <b>Accession</b>     | NP_037255.3   |
| <b>Bio-activity</b>  | Measured by its ability to inhibit IL1 $\alpha$ -dependent proliferation in D10.G4. 1 mouse helper T cells (Symons, J. A. et al. (1987) in Lymphokines and Interferons, a Practical Approach. Clemens, M. J. et al. (eds): IRL Press. 272. ). The ED <sub>50</sub> for this effect is typically 5-20 $\mu$ g/ml in the presence of 40 pg/mL of recombinant human IL1 $\alpha$ . |

### Properties

|                       |  |
|-----------------------|--|
| <b>Purity</b>         | > 85 % as determined by reducing SDS-PAGE.   |
| <b>Endotoxin</b>      | < 1.0 EU per $\mu$ g 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<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual.              |
| <b>Reconstitution</b> | Please refer to the printed manual for detailed information.   |

### Data



> 85 % as determined by reducing SDS-PAGE.

### Background

### For Research Use Only

Toll-free: 1-888-852-8623  
Web: [www.elabscience.com](http://www.elabscience.com)

Tel: 1-832-243-6086  
Email: [techsupport@elabscience.com](mailto:techsupport@elabscience.com)

Fax: 1-832-243-6017

Rev. V3.5

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 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.