



Recombinant Protein Technical Manual

Recombinant Rat IL1R1/CD121a Protein (His Tag)(Active)
RPES1364

Product Data:

Product SKU: RPES1364

Size: 50µg

Species: Rat

Expression host: HEK293 Cells

Uniprot: NP_037255.3

Protein Information:

Molecular Mass: 38.5 kDa

AP Molecular Mass: 50-60 kDa

Tag: C-His

Bio-activity: Immobilized rat IL1R1-His at 10 µg/ml (100 µl/well) can bind rat Fc-IL1RN, The EC50 of rat Fc-IL1RN is 5.11.9 ng/ml.

Purity: > 95 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method

Storage: 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.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application: Functional ELISA

Synonyms: Il1r1

Immunogen Information:

Sequence: Met 1-Lys 352

Background:

Interleukin 1 receptor, type I (ILR1) also known as CD121a (Cluster of Differentiation 121a), is an interleukin receptor. ILR1/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). ILR1/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 β activity-dependent, acting through the IL type 1 receptor (ILR1), as co-application of the ILtype 1 receptor antagonist protein (ILRa) blocks IL β induced effects. In the spleen, a slight increase in ILR AcP and ILR1 was observed during the first hours following LPS stimulation. In conclusion, ILR AcP mRNA is expressed in the brain and in other tissues where ILR1/CD121a transcripts are found. However, the regulation of its expression is distinct from ILR1/CD121a. The high level of expression and the lack of regulation of ILR AcP transcripts in the brain under inflammatory conditions suggest that the protein might be constitutively expressed in excess.