Recombinant Mouse IL1R1/CD121a Protein (His Tag)

Catalog Number: PKSM040477



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

Description	
Synonyms	Interleukin-1 receptor type 1;IL-1RT1;IL-1 RI;CD121b;IL-1R1;IL-iR;Il1r-1
Species	Mouse
Expression Host	HEK293 Cells
Sequence	Met 1-Lys 338
Accession	P13504
Calculated Molecular Weight	38.7 kDa
Observed molecular weight	55-60 kDa
Tag	C-His
Bioactivity	1. Measured by its ability to bind mouse IL1B in a functional ELISA. 2. Immobilized mouse IL1A at 10 μ g/mL (100 μ l/well) can bind mouse IL1R1, The EC50 of mouse IL1R1 is 0.13 μ g/mL.
Properties	
Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μ g of the protein as determined by the LAL method.
Storage	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.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	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.
Reconstitution	Please refer to the printed manual for detailed information.
Data	

KDa	MK R
116	-
66.2	
45.0	
35.0	_
25.0	-
18.4	-
14.4	-

> 95 % 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 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

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astrocytes enclose the wound, separating the healthy from damaged neural tissue. The shape change and subsequent repair processes are IL-1 β 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-1 β 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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