

## Anti-IL-1R1 Antibody-PE (5P116)

## Product Details

Ig Type:	Rabbit IgG
Reactivity:	Rat
Conjugation:	PE
Clone:	5P116
Purification:	Protein A

## Applications

Verified Activity:	Flow cytometric analysis of Rat IL1R1(CD121a) expression on rat splenocytes. SD splenocytes were stained with PE-conjugated anti-Rat IL1R1(CD121a). The histogram were derived from gated events with the forward and side light-scatter characteristics of intact cells.
Application:	FCM
Recommended	10 µl/Test, 0.1 mg/ml

## Properties

Stability & Storage:	Store at 2°C-8°C for 12 months, do not freeze. Keep away from direct sunlight. Sodium azide is toxic to cells and should be disposed of properly. Flush with large volumes of water during disposal.
Shipping:	Shipping with blue ice.

## Antigen Details

Immunogen:	Recombinant Protein: Rat IL-1R1 / CD121a protein (TMPY-02059)
Antigen Species:	Rat
Synonyms:	interleukin 1 receptor, type I
Biology Area:	Neuroinflammation

## Research 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 cytokines 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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Tel: 781-999-4286    E\_mail: info@targetmol.com    Address: 34 Washington Street, Wellesley Hills, MA 02481