

# Recombinant Human IL-1R1 (C-6His)

Catalog # EPT127

**Expression Host** Human Cells

**DESCRIPTION** Recombinant Human Interleukin-1 Receptor Type

1/IL-1R-1 is produced by our Mammalian expression

system and the target gene encoding Leu18-Thr332 is

expressed with a 6His tag at the C-terminus.

Accession P14778

**Synonyms** 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; p80; CD121a

Mol Mass 37 KDa

**AP Mol Mass** 48-66 KDa, reducing conditions

**Purity** Greater than 95% as determined by reducing

SDS-PAGE.

**Endotoxin** Less than 0.1 ng/μg (1 EU/μg) as determined by LAL

test.

**FORMULATION** Lyophilized from a 0.2 µm filtered solution of PBS, pH

7.4.



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#### RECONSTITUTION

Always centrifuge tubes before opening.Do not mix by vortex or pipetting.

It is not recommended to reconstitute to a concentration less than 100µg/ml.

Dissolve the lyophilized protein in distilled water.

Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

## **SHIPPING**

The product is shipped at ambient temperature.

Upon receipt, store it immediately at the temperature listed below.

## **STORAGE**

Lyophilized protein should be stored at < -20 ° C, though stable at room temperature for 3 weeks.

Reconstituted protein solution can be stored at 4-7°C for 2-7 days.

Aliquots of reconstituted samples are stable at < -20° C for 3 months.

#### **BACKGROUND**

Interleukin 1 receptor, type I (IL-1R1) is an interleukin receptor that belongs to the interleukin-1 receptor family. IL-1R1 is an 80 kDa transmembrane protein that is expressed predominantly by T cells, fibroblasts, and endothelial cells. This gene along with IL1R2, IL1RL2, and IL1RL1 form a cytokine receptor gene





cluster in a region mapped to chromosome 2q12. IL-1R1 is an important mediator involved in many cytokine induced immune and inflammatory responses. It binds to interleukin-1 associates with the IL1RAP to form the high interleukin-1 receptor complex which mediates interleukin-1-dependent activation of NF-kappa-B, MAPK and other pathways. The signaling involves the recruitment of adapter molecules such as TOLLIP, MYD88, and IRAK1 or IRAK2 via the respective TIR domains of the receptor/coreceptor subunits. It also binds ligands with comparable affinity and binding of antagonist IL1RN prevents association with IL1RAP to form a signaling complex. An IL1 receptor accessory protein that can heterodimerize with the Type I receptor in the presence of IL1 $\alpha$  or IL1 $\beta$  but not IL1ra, was identified. Recombinant IL1 soluble receptor Type I is a potent antagonist of IL1 action.





