



Recombinant Protein Technical Manual  
Recombinant Human IL1R1/CD121a Protein (Fc Tag)  
RPES1006

Product Data:

**Product SKU:** RPES1006

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** P14778

Protein Information:

**Molecular Mass:** 62.9 kDa

**AP Molecular Mass:** 8005 kDa

**Tag:** C-Fc

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg 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 a 0.2 µm filtered solution of PBS, pH7.4.

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

**Application:**

**Synonyms:** CD121A;D2S1473;IL RI;ILR-alpha;ILR1;IL1R;IL1RA;P80;Interleukin receptor type 1; ILR; ILRT; ILRT1; CD121 antigen-like family member A; Interleukin receptor alpha; ILR-alpha

## Immunogen Information:

**Sequence:** Leu18-Thr332

## Background:

Interleukin 1 receptor, type I (ILR1) is an interleukin receptor that belongs to the interleukin receptor family. ILR1 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. ILR1 is an important mediator involved in many cytokine induced immune and inflammatory responses. It binds to interleukin associates with the coreceptor IL1RAP to form the high affinity interleukin receptor complex which mediates interleukin-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.