

# Recombinant Mouse IL-36Ra/IL-1F5 Protein

Catalog No.: RP01809 Recombinant

### **Sequence Information**

**Species Gene ID Swiss Prot**Mouse 54450 090YY1

Tags

NO-tag

**Synonyms** 

Il1f5; If36rn; Il-1h3; Il1hy1; IL-36Ra; Fil1delta

### **Product Information**

**Source** Purification HEK293 cells > 97% by SDS-

PAGE.

Calculated MW Observed MW

16.87 kDa 16-20 kDa

**Endotoxin** 

∏1EU/μg

#### **Formulation**

Lyophilized from a 0.22  $\mu$ m filtered solution of PBS, pH 7.4.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

#### **Contact**

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### **Background**

Interleukin-1 family member 5 (IL-1F5), also known as interleukin 36 receptor antagonist (IL36RA), is a member of the interleukin 1 cytokine family. This cytokine was shown to specifically inhibit the activation of NF-kappaB induced by interleukin 1 family, member 6 (IL1F6). IL-1F5 is a highly and specific antagonist of the IL-1 receptor-related protein 2-mediated response to interleukin 1 family member 9 (IL1F9). IL-1F5 could constitute part of an independent signaling system analogous to interleukin-1 alpha (IL-1A), beta (IL-1B) receptor agonist, and interleukin-1 receptor type I (IL-1R1), which is present in epithelial barriers and takes part in the local inflammatory response. It has been proved that IL-1F5 induces IL-4 mRNA and protein expression in glia in vitro and enhances hippocampal expression of IL-4 following intracerebroventricular injection. The inhibitory effect of IL-1F5 on LPS-induced IL-1ß is attenuated in cells from IL-4-defective mice. Experiment results suggest that IL-1F5 mediates anti-inflammatory effects through its ability to induce IL-4 production and that this is a consequence of its interaction with the orphan receptor, single Iq IL-1Rrelated molecule (SIGIRR)/TIR8, as the effects were not observed in SIGIRR-/- mice. In contrast to its effects in brain tissue, IL-1F5 did not attenuate LPS-induced changes, or up-regulated IL-4 in macrophages or dendritic cells, suggesting that the effect is confined to the brain.

#### **Basic Information**

### **Description**

Recombinant Mouse IL-36Ra/IL-1F5 Protein is produced by expression system. The target protein is expressed with sequence (Val3-Asp156) of mouse IL-36Ra/IL-1F5 (Accession #NP\_062324.2) fused with no additional amino acid.

#### **Bio-Activity**

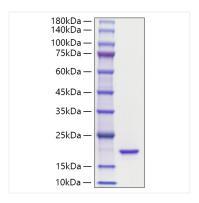
#### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20  $^{\circ}$ C for 3 months, at 2-8  $^{\circ}$ C for up to 1 week.

Avoid repeated freeze/thaw cycles.

## **Validation Data**



Recombinant Mouse IL-36Ra/IL-1F5 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 15-25 kDa.