# Recombinant Human IL1F5/IL36RN Protein

**Catalog Number: PKSH031850**

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

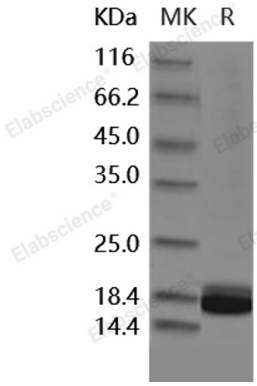
## Description

| | |
|---|---|
| **Species** | Human |
| **Mol_Mass** | 17.8 kDa |
| **Accession** | Q9UBH0 |
| **Bio-activity** | Measure by its ability to inhibit IL-36 gamma-induced IL-8 secretion in PBMC cells.The $ED_{50}$ for this effect is <2 ng/mL in the presence of 500 ng/mL of recombinant human IL-36 gamma. |

## Properties

| | |
|---|---|
| **Purity** | > 98 % as determined by reducing SDS-PAGE. |
| **Endotoxin** | < 0.1 EU per μg 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 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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.<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| **Reconstitution** | Please refer to the printed manual for detailed information. |

## Data




> 98 % as determined by reducing SDS-PAGE.

## Background

**For Research Use Only**

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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 a 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 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-1β 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 Ig IL-1R-related 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.

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