

Recombinant Protein Technical Manual Recombinant Human IL1F5/IL36RN Protein

RPES1716

| 12.1 | 6 | Ct. | ata: |
|------|---|-----|------|
|      |   | 66  | 262. |

Product SKU: RPES1716

Species: Human

**Size:** 20µg

Expression host: E. coli

Uniprot: Q9UBH0

| Protein Information: |  |  |  |  |
|----------------------|--|--|--|--|
| Molecular Mass:      | 17.1 kDa   |  |  |  |
| AP Molecular Mass:   | 18 kDa   |  |  |  |
| Tag:                 |  |  |  |  |
| Bio-activity:        |  |  |  |  |
| Purity:              | > 99 % as determined by reducing SDS-PAGE.   |  |  |  |
| Endotoxin:           | Please contact us for more information.  |  |  |  |
| Storage:             | Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C.<br>Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of<br>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 sterile PBS   |  |  |  |
| Reconstitution:      | Please refer to the printed manual for detailed information.   |  |  |  |
| Application:         |  |  |  |  |
| Synonyms:            | Interleukin-36 Receptor Antagonist Protein; FIL1 Delta; IL-Related Protein 3; ILRP3;<br>Interleukin HY1; ILHY1; Interleukin Delta; IL Delta; Interleukin Family Member 5;<br>ILF5; Interleukin Receptor Antagonist Homolog 1; ILra Homolog 1; Interleukin-Like<br>Protein 1; ILL1; IL36RN; FIL1D; IL1F5; IL1HY1; IL1L1; IL1RP3 |  |  |  |

## Sequence: Met 1-Asp155

## Background:

Interleukin family member 5 (ILF5), 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 NFkappaB induced by interleukin 1 family, member 6 (IL1F6). ILF5 is a highly and a specific antagonist of the IL receptor-related protein 2-mediated response to interleukin 1 family member 9 (IL1F9). ILF5 could constitute part of an independent signaling system analogous to interleukin alpha (ILA), beta (ILB) receptor agonist and interleukin receptor type I (ILR1), which is present in epithelial barriers and takes part in local inflammatory response. It has been proved that ILF5 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 ILF5 on LPS-induced ILβ is attenuated in cells from IL-4-defective mice. Experiment results suggest that ILF5 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 ILR-related molecule (SIGIRR)/TIR8, as the effects were not observed in SIGIRR-/- mice. In contrast to its effects in brain tissue, ILF5 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.