

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

Catalog No.: RP01809

Sequence Information

Species **Gene ID**
Mouse 54450

Swiss Prot **Tags**
Q9QYY1 NO-tag

Synonyms

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

Product Information

Source **Purification**
E. coli ≥ 95 % as
determined by
SDS-PAGE.

Calculated MW **Observed MW**
16.87 kDa 16-20 kDa

Endotoxin

< 1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm 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 stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

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-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.

Basic Information

Description

Recombinant Mouse IL-36Ra/IL-1F5 Protein is produced by *E. coli* 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.

Activity

Shipping

Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

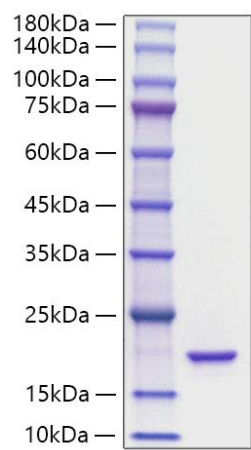
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Validation Data



Recombinant Mouse IL-36Ra/IL-1F5 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.