Mouse IL1F5 / IL1RP3 Protein

Catalog Number: **50213-MNAE**

General Information

Gene Name Synonym:

AI413231; Fil1delta; Il-1h3; Il1hy1; RP23-176J12.6

Protein Construction:

A DNA sequence encoding the mouse IL1F5 (NP_062324.2) (Val 3-Asp 156) was expressed and purified..

Source: Mouse

Expression Host: E. coli

QC Testing

Purity: > 94 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met 2

Molecular Mass:

The recombinant mouse IL1F5 consists of 155 amino acids and has a calculated molecular mass of 17 kDa. It migrates as a 19 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

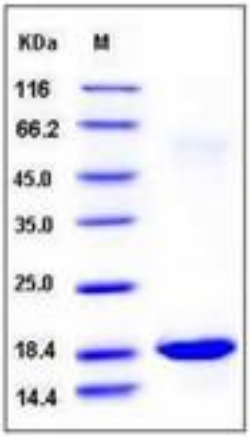
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

References

1.Nicklin MJ, *et al*. (1994) A physical map of the region encompassing the human interleukin-1 alpha, interleukin-1 beta, and interleukin-1 receptor antagonist genes. Genomics. 19 (2): 382-4. 2.Debets R, *et al*. (2001) Two novel IL-1 family members, IL-1 delta and IL-1 epsilon, function as an antagonist and agonist of NF-kappa B activation through the orphan IL-1 receptor-related protein 2. J Immunol. 167 (3): 1440-6. 3.Costelloe C, *et al*. (2008) IL-1F5 mediates anti-inflammatory activity in the brain through induction of IL-4 following interaction with SIGIRR/TIR8. J Neurochem. 105(5): 1960-9.