Mouse SIGIRR / TIR8 Protein (His & Fc Tag)

Catalog Number: **50122-M03H**

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General Information

Gene Name Synonym:

TIR8; AI256711; TIR8

Protein Construction:

A DNA sequence encoding the mouse SIGIRR (NP_075546.2) (Met 1-His 117) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

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

Predicted N terminal: Met

Molecular Mass:

The recombinant mouse SIGIRR is a disulfide-linked homodimeric protein. The reduced monomer consists of 365 amino acids and has a predicted molecular mass of 40.7 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rmSIGIRR/Fc monomer is approximately 60-65 kDa due to glycosylation.

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:

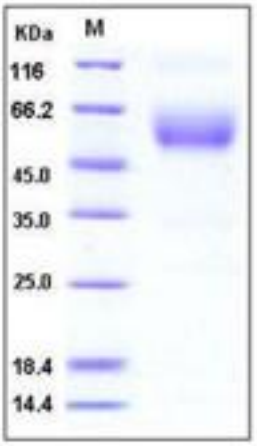
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Single Ig IL-1-related receptor (SIGIRR) or TIR8 is a member of Toll-like receptor-interleukin 1 receptor signaling (TLR-IL-1R) receptor superfamily. Although SIGIRR/TIR8 shows the typical conserved motifs that characterize the IL-1R and Toll superfamily, it is structurally and functionally distinct from both. SIGIRR/TIR8 has only one Ig domain in its extracellular portion whereas the IL-1R family contains three Ig folds. An unusually long cytoplasmic domain is reminiscent of the structure of drosophila Toll, yet the SIGIRR peptide sequence is more closely related to IL-1RI. SIGIRR/TIR8 was mainly expressed in mouse and human epithelial tissues such as kidney, lung and gut. Resting and activated T and B lymphocytes and monocytes-macrophages expressed little or no SIGIRR/TIR8, with the exception of the mouse GG2EE macrophage line. Inflammation is enhanced in SIGIRR-deficient mice. SIGIRR negatively modulates immune responses. Inflammation is enhanced in SIGIRR-deficient mice, as shown by their enhanced chemokine induction after IL-1 injection and reduced threshold for lethal endotoxin challenge.

References

1.Wald D, *et al*. (2003) SIGIRR, a negative regulator of Toll-like receptor-interleukin 1 receptor signaling. Nat Immunol. 4(9): 920-7.
2.Polentarutti N, *et al*. (2003) Unique pattern of expression and inhibition of IL-1 signaling by the IL-1 receptor family member TIR8/SIGIRR. Eur Cytokine Netw. 14(4): 211-8.
3.Wald D, *et al*. (2003) SIGIRR, a negative regulator of Toll-like receptor-interleukin 1 receptor signaling. Nat Immunol. 4(9): 920-7.