

Human SIGIRR / TIR8 Protein (Fc Tag)

Catalog Number: 12165-H02H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

TIR8; AI256711; TIR8

Protein Construction:

A DNA sequence encoding the human SIGIRR (Q6IA17-1) (Met1-His118) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: (96.8±1.6) % 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 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human SIGIRR/Fc is a disulfide-linked homodimer. The reduced monomer comprises 359 amino acids and has a predicted molecular mass of 39.5 kDa. The apparent molecular mass of the protein is approximately 47-54 and 33 kDa 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:

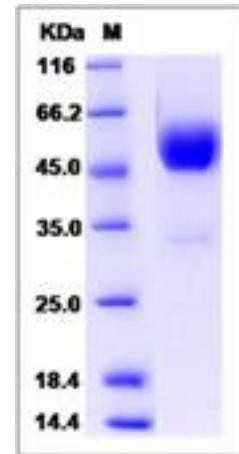
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.

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