

Mouse MARCO Protein (His Tag)

Catalog Number: 50283-M07H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

AI323439; Ly112; Scara2

Protein Construction:

A DNA sequence encoding the extracellular domain of mouse MARCO (NP_034896.1) (Gln 70-Ser 518) was expressed, fused with a polyhistidine tag at the N-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 92 % 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: His

Molecular Mass:

The secreted recombinant mouse MARCO consists of 465 amino acids and has a calculated molecular mass of 47.3 kDa. As a result of glycosylation, the recombinant protein migrates as an approximately 55-60 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:

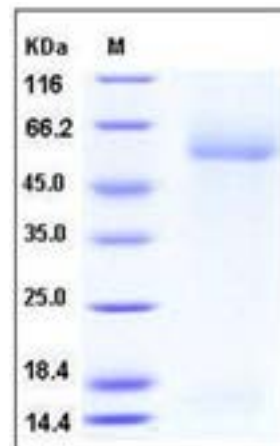
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Macrophage receptor MARCO, also known as Macrophage receptor with collagenous structure and Marco, is a single-pass type II membrane protein. MARCO is a member of the class A scavenger receptor family and is part of the innate antimicrobial immune system. It is expressed in subpopulations of macrophages in the spleen and the medullary cord of lymph nodes. Although it is expressed on subsets of macrophages, it can be upregulated on other macrophages after bacterial infection. The strategic position of MARCO-expressing cells in lymphoid organs suggests an important role for this bacteria-binding molecule in removal of pathogens. MARCO has a short N-terminal cytoplasmic domain, a transmembrane domain, and a large extracellular part composed of a 75-residue long spacer domain, a 270-residue collagenous domain, and a 99-residue long scavenger receptor cysteine-rich (SRCR) domain. It is possible that cooperation between the SRCR domain and the collagenous domain is needed for high-affinity bacterial binding, or that the SRCR domain has to be in a trimeric form to effectively bind to bacteria

References

1.Kraal, G. et al., 2000, Microbes Infect . 2 (3): 313-6. 2.Sankala, M., 2002, J Biol Chem. 277 (36): 33378-85. 3.Arredouani, MS., 2004, Cell Mol Biol. 50 Online Pub : OL657-65.

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