

Human CD68 / Macrosialin / Gp110 Protein (His & Fc Tag)

Catalog Number: 11192-H03H



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Biological Solution Specialist

General Information

Gene Name Synonym:

GP110; LAMP4; SCARD1; gp110; Lamp4; Scard1

Protein Construction:

A DNA sequence encoding the human CD68 (NP_001242.2) extracellular domain (Met 1-Ser 319) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 96 % 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: Asn 22

Molecular Mass:

The recombinant human CD68/Fc is a disulfide-linked homodimer after removal of the signal peptide. The reduced monomer consists of 546 amino acids and has a predicted molecular mass of 59.6 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh CD68/Fc monomer is approximately 110-120 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:

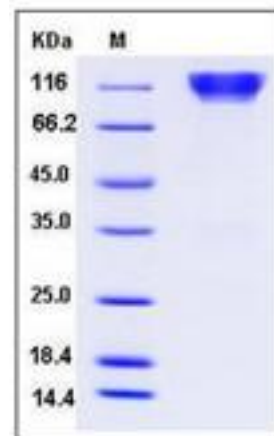
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Macrosialin, also known as CD68 and Gp110, is a single-pass type I membrane protein which belongs to the LAMP family. CD68 is highly expressed by blood monocytes and tissue macrophages. It is also expressed in lymphocytes, fibroblasts and endothelial cells. CD68 is expressed in many tumor cell lines which could allow them to attach to selectins on vascular endothelium, facilitating their dissemination to secondary sites. CD68 plays a role in phagocytic activities of tissue macrophages, both in intracellular lysosomal metabolism and extracellular cell-cell and cell-pathogen interactions. It is a commonly used marker for macrophages. However, a number of studies have shown that CD68 antibodies react with other hematopoietic and non-hematopoietic cell types, suggesting that CD68 may not be a macrophage-specific antigen. CD68 binds to tissue- and organ-specific lectins or selectins, allowing homing of macrophage subsets to particular sites. Rapid recirculation of CD68 from endosomes and lysosomes to the plasma membrane may allow macrophages to crawl over selectin-bearing substrates or other cells.

References

1. Strobl H. et al., 1995, Br J Haematol. 90 (4): 774-82.
2. Ogawa Y. et al., 1995, Pathol Int. 45 (9): 698-701.
3. Sadovnikova E. et al., 2002, Leukemia. 16 (10): 2019-26.

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