

Mouse VSIG4 Protein (His & Fc Tag)

Catalog Number: 50187-M03H



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Biological Solution Specialist

General Information

Gene Name Synonym:

CRlg; Z39IG; A530061A11; BC025105; CRlg; Z39IG

Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1-Pro 187) of mouse VSIG4 (NP_808457.1) precursor 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 °C

Predicted N terminal: His 20

Molecular Mass:

The recombinant mouse VSIG4/Fc is a disulfide-linked homodimer after removal of the signal peptide. The reduced monomer consists of 416 amino acids and has a predicted molecular mass of 47 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rmVSIG4/Fc monomer is approximately 60 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:

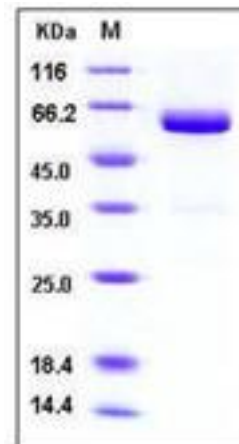
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

VSIG4 (V-set and immunoglobulin domain containing 4), also known as complement receptor of the immunoglobulin superfamily (CRlg) and Z39Ig, is a type I transmembrane glycoprotein. It is a B7 family-related protein and an Ig superfamily member. In contrast to the B7 family members which contain two IgG domains, VSIG4 contains one complete V-type I g domain and a truncated C-type I g domain. VSIG4 is exclusively expressed on tissue resident macrophages and binds to multimers of C3b and iC3b that are covalently attached to particle surfaces. No VSIG4 expression appears to be present in T and B cells. VSIG4 functions as a negative regulator of T cell activation, and may be involved in the maintenance of peripheral T cell tolerance, and is also identified as a potent suppressor of established inflammation. Mouse VSIG4 is synthesized as a 280 amino acid precursor that contains a signal sequence, an V-type I g domain (aa 36-115), one potential N-linked glycosylation site, and a single transmembrane domain. The V-type I g domain of mouse VSIG4 shares 86% and 80% aa sequence identity with the V-type I g domains of rat and human VSIG4, respectively.

References

1. Vogt, L. et al., 2006, J Clin Invest. 116: 2817-2826.
2. Helmy, K. et al., 2006, Cell. 124:915-927.
3. Wiesmann, C. et al., 2006, Nature. 444:217-220.

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