Human VSIG4 Protein (Fc Tag)

Catalog Number: **12163-H02H**

General Information

Gene Name Synonym:

CRIg; Z39IG

Protein Construction:

A DNA sequence encoding the human VSIG4 (NP_009199.1) (Met1-Pro283) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 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: Arg 20

Molecular Mass:

The recombinant human VSIG4/Fc is a disulfide-linked homodimer. The reduced monomer comprises 505 amino acids and has a predicted molecular mass of 56.2 kDa. The apparent molecular mass of the protein is approximately 57 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:

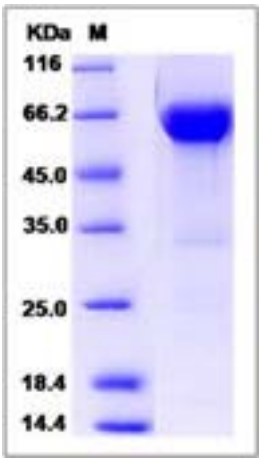
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

VSIG4 (V-set and immunoglobulin domain containing 4), also known as complement receptor of the immunoglobulin superfamily (CRIg) 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 Ig domain and a truncated C-type Ig 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 Ig domain (aa 36-115), one potential N-linked glycosylation site, and a single transmembrane domain. The V-type Ig domain of mouse VSIG4 shares 86% and 80% aa sequence identity with the V-type Ig 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.