

VSIG4 Protein, Mouse, Recombinant (His & hFc)

General Information

Synonyms:	CR1g;Z391g;A530061A11;BC025105;V-set and immunoglobulin domain containing 4
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. Predicted N terminal: His 20
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	F6TUL9
Molecular Weight:	47 kDa (predicted); 60 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

VSIG4 (V-set and immunoglobulin domain containing 4), also known as complement receptor of the immunoglobulin superfamily (CR1g) and Z391g, 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

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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 28 amino acid precursor that contains a signal sequence, a 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 8% aa sequence identity with the V-type I g domains of rat and human VSIG4, respectively.

Reference

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Tel: 781-999-4286 E_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481