

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived		
	Mouse VSIG2 (Val25-Ala244) Accession # Q9Z109-1	IEGRMDP	Mouse IgG _{2a} (Glu98-Lys330)
	N-terminus		C-terminus

N-terminal Sequence Analysis	Val25
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	50 kDa

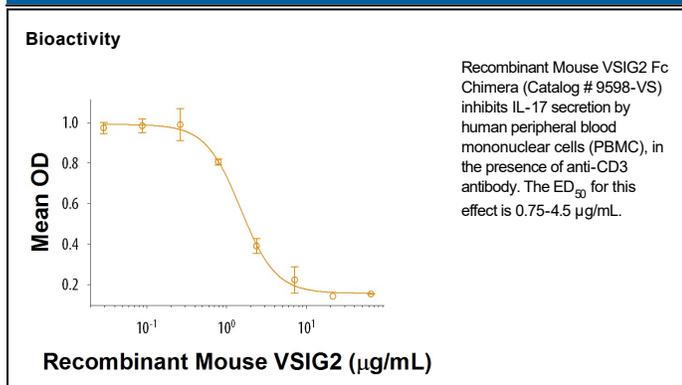
SPECIFICATIONS

SDS-PAGE	58-66 kDa, reducing conditions
Activity	Measured by its ability to inhibit anti-CD3 antibody induced IL-17 secretion by human peripheral blood mononuclear cells (PBMC). The ED ₅₀ for this effect is 0.75-4.5 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 200 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA



BACKGROUND

V-set and immunoglobulin domain-containing protein 2 (VSIG2), also known as CTM or CT-like protein, is a member of the much larger Ig superfamily. Mature mouse VSIG2 is a single-pass type I transmembrane protein with a 220 aa extracellular domain (ECD) and a 63 aa cytoplasmic region linked by a short transmembrane domain. The ECD of VSIG2 contains one Ig-like C2-type (immunoglobulin-like) and one Ig-like V-type (immunoglobulin-like) domain. Mouse VSIG2 ECD shares 85% and 94% identity with human and rat, respectively. In humans, VSIG2 is highly expressed in stomach, colon, prostate, trachea and thyroid glands and weakly in bladder and lung (1). V-set domains are Ig-like domains resembling the antibody variable domain and are found in diverse protein families from immunoglobulin light and heavy chains to T cell receptors and adhesion molecules (2). Several VSIG molecules, including VSIG1 and VSIG4, can be classified into the junctional adhesion molecule (JAM) family based on the immunoglobulin folds, V- and C2-types, found in the ECD (3, 4). While the function of VSIG2 is currently unknown, based on the structural similarity to JAM molecules, it is most likely a cell adhesion molecule (2-4). R&D Systems in-house testing indicates that VSIG2 inhibits anti-CD3 antibody induced IL-17 secretion in human PBMC.

MANUFACTURING SPECIFICATIONS

1. Chrétien, I. *et al.* (1998) *Eur J Immunol.* **28**(12):4094.
2. Barclay, A.N. (2003) *Semin Immunol.* **15**(4):215.
3. Bazzoni, G. *Curr Opin* (2003) *Cell Biol.* **15**(5):525.
4. Zang, X. and Allison, J.P. (2006) *J Clin Invest.* **116**(10):2590.