

**DESCRIPTION**

<b>Source</b>	Mouse myeloma cell line, NS0-derived		
	Human VSIG3 (Leu23-Gly245) Accession # BAC07546	IEGRMD	Human IgG <sub>1</sub> (Pro100-Lys330)
	N-terminus		C-terminus
<b>N-terminal Sequence Analysis</b>	Leu23		
<b>Structure / Form</b>	Disulfide-linked homodimer		
<b>Predicted Molecular Mass</b>	50 kDa		

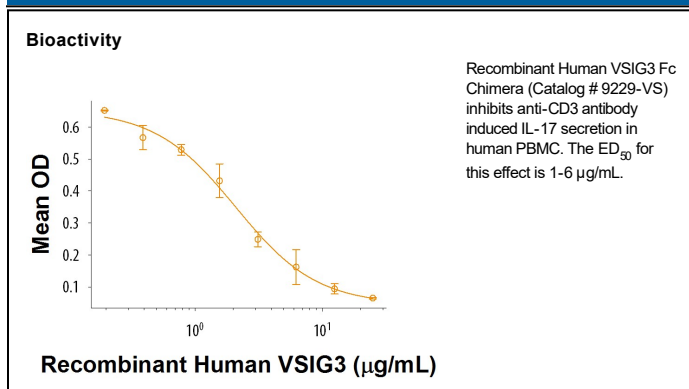
**SPECIFICATIONS**

<b>SDS-PAGE</b>	56-69 kDa, reducing conditions
<b>Activity</b>	Measured by its ability to inhibit anti-CD3 antibody induced IL-17 secretion by human peripheral blood mononuclear cells (PBMC). The ED <sub>50</sub> for this effect is 1-6 µg/mL.
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

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

**DATA**



**BACKGROUND**

VSIG3, also known as IGSF11, BT-IgSF, and CLMP, is an approximately 50 kDa transmembrane adhesion protein (1). Mature human VSIG3 consists of a 219 amino acid (aa) extracellular domain (ECD) that contains two tandem Ig-like domains, a 21 aa transmembrane segment, and a 169 aa cytoplasmic domain (2). Within the ECD, human VSIG3 shares 95% aa sequence identity with mouse and rat VSIG3. Alternative splicing generates additional isoforms with a substituted signal peptide that may also have a deletion in the second Ig-like domain (3). VSIG3 is expressed on epithelial and endothelial cells, neurons and glial cells, and platelets (2-4). It localizes to epithelial tight junctions and mediates homophilic in trans cell adhesion (3-5). VSIG3 also localizes to neuronal postsynaptic densities where it recruits the GluA1 and GluA2 subunits of AMPA receptors and supports excitatory synaptic transmission (6). The short isoform can be up-regulated in gastric cancer (7). In zebrafish, VSIG3 is expressed in melanophores and their precursors and plays a role in the development and patterning of pigment cells (8).

**References:**

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5. Harada, H. *et al.* (2005) *J. Cell. Physiol.* **204**:919.
6. Jang, S. *et al.* (2016) *Nat. Neurosci.* **19**:84.
7. Watanabe, T. *et al.* (2005) *Cancer Sci.* **96**:498.
8. Eom, D.S. *et al.* (2012) *PLoS Genet.* **8**:e1002899.