Recombinant Mouse VSIG1 Fc Chimera

Catalog Number: 9645-VS

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived

Mouse VSIG1 (Val23-Glu234) Accession # NP_084457	IEGRMDP	Mouse IgG_{2a} (Glu98-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis	Val23
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	50 kDa

SPECIFICATIONS

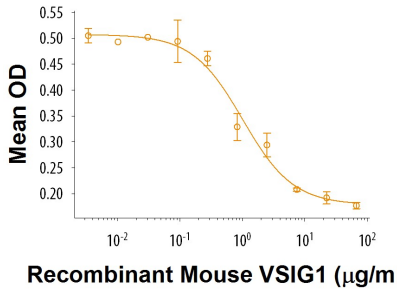
SDS-PAGE	63-76 kDa, reducing conditions
Activity	Measured by its ability to inhibit anti-CD3 antibody induced IL-17 secretion by human peripheral blood mononuclear cells (PBMC). The ED_{50} for this effect is 1-6 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>90%, 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.** ● 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

Bioactivity



Recombinant Mouse VSIG1 Fc Chimera (Catalog # 9645-VS) inhibits IL-17 secretion by human peripheral blood mononuclear cells (PBMC), in the presence of anti-CD3 antibody. The ED_{50} for this effect is 1-6 µg/mL.

BACKGROUND

VSIG1 (V-set and immunoglobulin domain-containing protein 1), also known as Glycoprotein A34, is a member of the JAM (junctional adhesion molecule) family of proteins (1, 2). It is predominantly expressed in stomach and testis, and was also detected in gastric, esophageal and ovarian cancers (2). VSIG1 is required for the proper differentiation of glandular gastric epithelia, and also plays a role as tumor suppressor (3, 4). This type I transmembrane glycoprotein consists of a 22 amino acid (aa) signal peptide, a 212 aa extracellular domain (ECD), a 21 aa transmembrane domain and a 152 aa cytoplasmic domain. Within the ECD, mouse VSIG1 shares 81% and 94% amino acid sequence identity with human and rat VSIG1, respectively. VSIG1 is structurally related to the B7 family of immune regulatory proteins. Our studies at R&D Systems show that VSIG1 inhibits T cell activation, including IL-17 and interferon gamma production.

References:

1. Kim, E. *et al.* (2010) Mol. Cells. **30**:443.
2. Scanlan, M.J. *et al.* (2006) Cancer Immun. **6**:2.
3. Oidovasambuu, O. (2011) PLoS One **10**:e25908.
4. Inoue, Y. *et al.* (2017) Cancer Sci. **8**:1701.

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