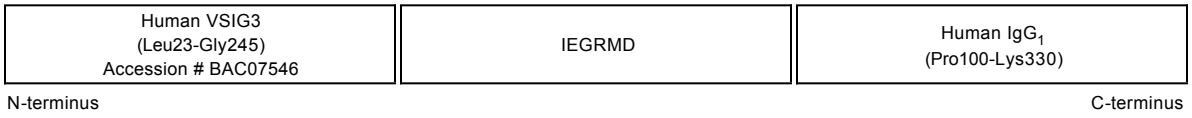
Recombinant Human VSIG3 Fc Chimera

Catalog Number: 9229-VS

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived



N-terminal Sequence Analysis	Leu23
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	50 kDa

SPECIFICATIONS

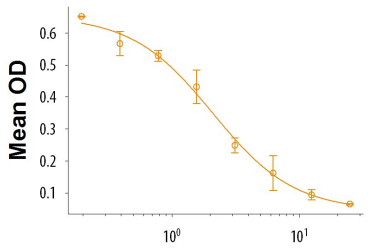
SDS-PAGE	56-69 kDa, reducing conditions
Activity	Measured by its ability to inhibit anti-CD3 antibody induced IL-17 secretion by human peripheral blood mononuclear cells (PBMC). The ED_{50} for this effect is 1-6 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, 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.** ● 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 Human VSIG3 Fc Chimera (Catalog # 9229-VS) inhibits anti-CD3 antibody induced IL-17 secretion in human PBMC. The ED_{50} for this effect is 1-6 µg/mL.

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:

1. Schreiber, J. *et al.* (2014) Adv. Neurobiol. **8**:21.
2. Suzu, S. *et al.* (2002) Biochem. Biophys. Res. Commun. **296**:1215.
3. Katoh, M. and M. Katoh (2003) Int. J. Oncol. **23**:525.
4. Raschperger, E. *et al.* (2004) J. Biol. Chem. **279**:796.
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.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956