

#### DESCRIPTION

**Source** Mouse myeloma cell line, NS0-derived human VSIG3 protein  
Leu23-Gly245, with a C-terminal 6-His tag  
Accession # Q5DX21.3

**N-terminal Sequence Analysis** Leu23

**Predicted Molecular Mass** 24 kDa

#### SPECIFICATIONS

**SDS-PAGE** 32-41 kDa, under reducing conditions

**Activity** Measured by its binding ability in a functional ELISA.

Recombinant Human VSIG3 His-tag (Catalog # 10806-VS) binds to Recombinant Human VISTA/B7-H5/PD-1H Fc Chimera (Catalog # 7126-B7) with an ED<sub>50</sub> of 0.0750 - 0.750 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.

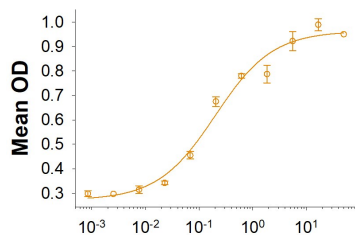
**Shipping** The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

**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.

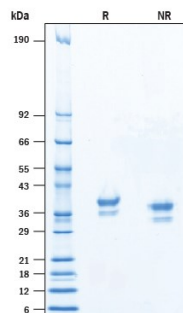
#### DATA

##### Binding Activity



**Recombinant Human VSIG3 His-tag Protein Binding Activity.** Recombinant Human VSIG3 His-tag Protein (Catalog # 10806-VS) binds to Recombinant Human VISTA/B7-H5/PD-1H Fc Chimera (Catalog # 7126-B7) with an ED<sub>50</sub> of 0.0750 - 0.750 µg/mL.

##### SDS-PAGE



**Recombinant Human VSIG3 His-tag Protein SDS-PAGE.** 2 µg/lane of Recombinant Human VSIG3 His-tag (Catalog # 10806-VS) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 32-41 kDa.

**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.
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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.