

**TMEM49 Antibody (C-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP13559b**

## Specification

## TMEM49 Antibody (C-term) Blocking peptide - Product Information

Primary Accession [Q96GC9](#)

### TMEM49 Antibody (C-term) Blocking peptide - Additional Information

**Gene ID** 81671

## Other Names

Vacuole membrane protein 1, Transmembrane protein 49, VMP1, TDC1, TMEM49

## Target/Specificity

The synthetic peptide sequence used to generate the antibody AP13559b was selected from the C-term region of TMEM49. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

## Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

## Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

## Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

## TMEM49 Antibody (C-term) Blocking peptide - Protein Information

**Name** VMP1 {ECO:0000303|PubMed:28890335, ECO:0000312|HGNC:HGNC:29559}

## Function

Phospholipid scramblase involved in lipid homeostasis and membrane dynamics processes (PubMed:[33929485](http://www.uniprot.org/citations/33929485)), PubMed:[33850023](http://www.uniprot.org/citations/33850023)). Has phospholipid scramblase activity toward cholesterol and phosphatidylserine, as well as phosphatidylethanolamine and phosphatidylcholine (PubMed:[33929485](http://www.uniprot.org/citations/33929485), PubMed:[33850023](http://www.uniprot.org/citations/33850023)). Required for autophagosome formation: participates in early stages of autophagosome biogenesis at the endoplasmic reticulum (ER) membrane by reequilibrating the leaflets of the ER as lipids are extracted by ATG2 (ATG2A or ATG2B) to mediate autophagosome assembly (PubMed:[28890335](http://www.uniprot.org/citations/28890335), PubMed:[30093494](http://www.uniprot.org/citations/30093494), PubMed:[30933966](http://www.uniprot.org/citations/30933966), PubMed:[30933966](http://www.uniprot.org/citations/30933966), PubMed:[30933966](http://www.uniprot.org/citations/30933966)).

href="http://www.uniprot.org/citations/33929485" target="\_blank">33929485</a>, PubMed:<a href="http://www.uniprot.org/citations/33850023" target="\_blank">33850023</a>). Regulates ATP2A2 activity to control ER-isolation membrane contacts for autophagosome formation (PubMed:<a href="http://www.uniprot.org/citations/28890335" target="\_blank">28890335</a>). In addition to autophagy, involved in other processes in which phospholipid scramblase activity is required (PubMed:<a href="http://www.uniprot.org/citations/31526472" target="\_blank">31526472</a>, PubMed:<a href="http://www.uniprot.org/citations/33850023" target="\_blank">33850023</a>). Modulates ER contacts with lipid droplets, mitochondria and endosomes (PubMed:<a href="http://www.uniprot.org/citations/28890335" target="\_blank">28890335</a>). Plays an essential role in formation of cell junctions (PubMed:<a href="http://www.uniprot.org/citations/17724469" target="\_blank">17724469</a>). Upon stress such as bacterial and viral infection, promotes formation of cytoplasmic vacuoles followed by cell death (By similarity). Involved in the cytoplasmic vacuolization of acinar cells during the early stage of acute pancreatitis (By similarity).

#### **Cellular Location**

Endoplasmic reticulum-Golgi intermediate compartment membrane {ECO:0000250|UniProtKB:Q91ZQ0}; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Vacuole membrane {ECO:0000250|UniProtKB:Q91ZQ0}; Multi-pass membrane protein. Endoplasmic reticulum membrane; Multi-pass membrane protein

#### **TMEM49 Antibody (C-term) Blocking peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

#### **TMEM49 Antibody (C-term) Blocking peptide - Images**

#### **TMEM49 Antibody (C-term) Blocking peptide - Background**

Stress-induced protein that, when overexpressed, promotes formation of intracellular vacuoles followed by cell death. May be involved in the cytoplasmic vacuolization of acinar cells during the early stage of acute pancreatitis (By similarity).

#### **TMEM49 Antibody (C-term) Blocking peptide - References**

Pardo, R., et al. Pancreatology 10(1):19-26(2010)Calvo-Garrido, J., et al. Mol. Biol. Cell 19(8):3442-3453(2008)Fujita, S., et al. J. Mol. Biol. 378(3):492-504(2008)Sauermann, M., et al. Oncogene 27(9):1320-1326(2008)Ropolo, A., et al. J. Biol. Chem. 282(51):37124-37133(2007)