



Rabbit Anti-TMEM49 antibody

SL6740R

Product Name:	TMEM49
Chinese Name:	Transmembrane protein49抗体
Alias:	Vacuole membrane protein 1; DKFZP566I133; TDC1; TMEM49; Transmembrane protein 49; vmp1; VMP1_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Pig,Horse,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	46kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human TMEM49:361-406/406<Extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Vacuole membrane protein 1 (VMP1)/TMEM49 is a transmembrane protein localized to intracellular vacuoles and was discovered as a protein that promotes vacuole formation in acinar cells associated with acute pancreatitis (1). Over-expression of VMP1 promotes vacuole formation and subsequent cell death (1). Subsequent studies have shown that VMP1 expression is induced by starvation and the mTOR inhibitor, rapamycin, and can

trigger autophagy (2). VMP1 is targeted, along with LC3, to autophagosome membranes (2). Knockdown of VMP1 can inhibit autophagosome formation (2). VMP1 interacts with Beclin-1, a key autophagy protein that activates the Class III PI3 kinase Vps34, which is regulated by a large network of associated proteins (3). VMP1 functions in the degradation and clearance of zymogen-containing vacuoles during experimental pancreatitis (4). During this process, VMP1 interacts with the ubiquitin protease USP9X, suggesting a possible functional link between the molecular machinery of autophagy and the ubiquitin pathway. Orthologues of VMP1 have been reported in *C. elegans* (known as EPG-3), *Drosophila* (known as TANGO-5), and *Dictyostelium*, and have been shown to play a role in membrane trafficking, organelle organization, and autophagy (5-7).

Function:

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. Plays a role in the initial stages of the autophagic process through its interaction with BECN1 (By similarity). Involved in cell-cell adhesion. Plays an essential role in formation of cell junctions. Sequence similarities: Belongs to the VMP1 family.

Subunit:

Belongs to the VMP1 family.

Subcellular Location:

Endoplasmic reticulum-Golgi intermediate compartment membrane. Cell membrane. Vacuole membrane. Endoplasmic reticulum.

Similarity:

Belongs to the VMP1 family.

SWISS:

Q96GC9

Gene ID:

81671

Database links:

[Entrez Gene: 81671](#)Human

[Entrez Gene: 75909](#)Mouse

[Entrez Gene: 192129](#)Rat

[Omim: 611753](#)Human

[SwissProt: Q96GC9](#)Human

[SwissProt: Q99KU0](#)Mouse

[SwissProt: Q91ZQ0](#)Rat

[Unigene: 444569](#)Human

[Unigene: 708260](#)Human

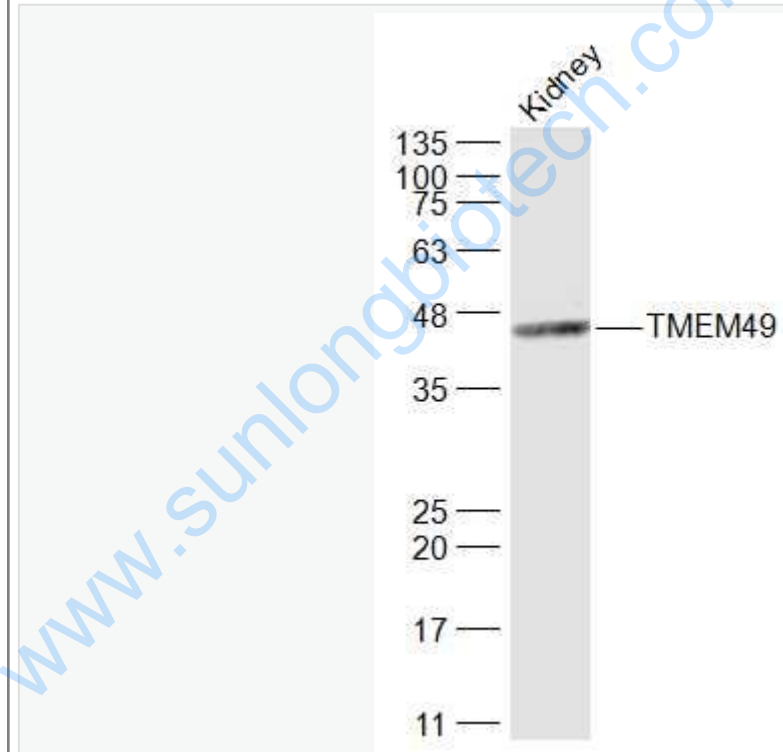
[Unigene: 390398](#)Mouse

[Unigene: 109048](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample:

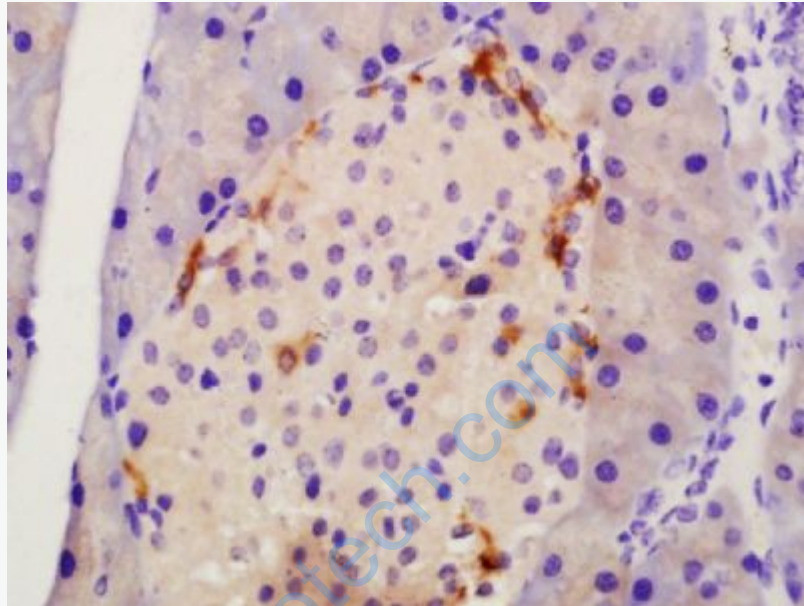
Kidney (Mouse) Lysate at 40 ug

Primary: Anti-TMEM49(SL6740R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 46 kD

Observed band size: 46 kD



Tissue/cell: mouse pancreas tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-TMEM49 Polyclonal Antibody, Unconjugated(SL6740R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining