10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

TMEM49 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13559b

Product Information

Application	WB, E
Primary Accession	Q96GC9
Other Accession	Q91ZQ0, Q99KU0, NP_112200.2
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31227
Calculated MW	46238
Antigen Region	377-406

Additional Information

Gene ID	81671
Other Names	Vacuole membrane protein 1, Transmembrane protein 49, VMP1, TDC1, TMEM49
Target/Specificity	This TMEM49 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 377-406 amino acids of human TMEM49.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	TMEM49 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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:33850023, PubMed:33929485). Has

	phospholipid scramblase activity toward cholesterol and phosphatidylserine, as well as phosphatidylethanolamine and phosphatidylcholine (PubMed:33850023, PubMed:33929485). 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, PubMed:30093494, PubMed:30933966, PubMed:33850023, PubMed:33929485). Regulates ATP2A2 activity to control ER-isolation membrane contacts for autophagosome formation (PubMed:28890335). In addition to autophagy, involved in other processes in which phospholipid scramblase activity is required (PubMed:31526472, PubMed:33850023). Modulates ER contacts with lipid droplets, mitochondria and endosomes (PubMed:28890335). Plays an essential role in formation of cell junctions (PubMed:17724469). 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

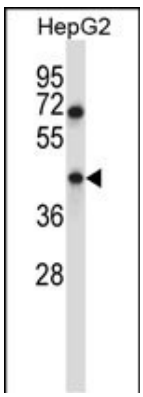
Background

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).

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)

Images



TMEM49 Antibody (C-term) (Cat. #AP13559b) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the TMEM49 antibody detected the TMEM49 protein (arrow).