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

TMEM59 Antibody
Catalog # ASC11240

Specification

TMEM59 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	Q9BXS4
Other Accession	NP_004863, 20070191
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**TMEM59 antibody can be used for detection of TMEM59 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.**

TMEM59 Antibody - Additional Information

Gene ID **9528**

Target/Specificity
TMEM59;

Reconstitution & Storage
TMEM59 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
TMEM59 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

TMEM59 Antibody - Protein Information

Name TMEM59

Synonyms C1orf8

Function
Acts as a regulator of autophagy in response to S.aureus infection by promoting activation of LC3 (MAP1LC3A, MAP1LC3B or MAP1LC3C). Acts by interacting with ATG16L1, leading to promote a functional complex between LC3 and ATG16L1 and promoting LC3 lipidation and subsequent activation of autophagy (PubMed:27273576, PubMed:23376921). Modulates the O-glycosylation and complex N- glycosylation steps occurring during the Golgi maturation of several proteins such as APP, BACE1, SEAP or PRNP (PubMed:20427278).

Inhibits APP transport to the cell surface and further shedding (PubMed:20427278).

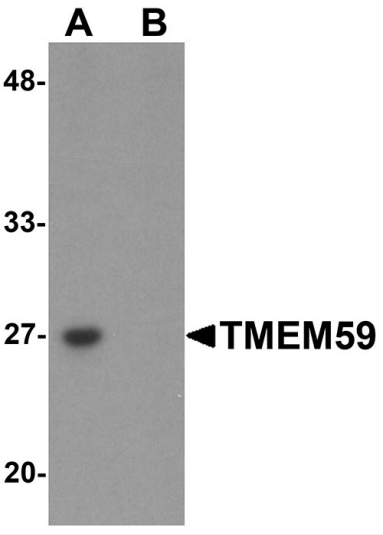
Cellular Location
Late endosome membrane; Single-pass type I membrane protein. Lysosome membrane; Single-pass type I membrane protein. Cell membrane; Single-pass type I membrane protein. Golgi apparatus membrane; Single-pass type I membrane protein. Note=Mainly localizes to late endosomes/lysosomes. Probably first exported to the cell surface and then actively endocytosed to transiently localize in early endosomes on its way to the late endosomal/lysosomal compartment where it becomes quickly degraded.

TMEM59 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TMEM59 Antibody - Images



Western blot analysis of TMEM59 in human kidney tissue lysate with TMEM59 antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide.

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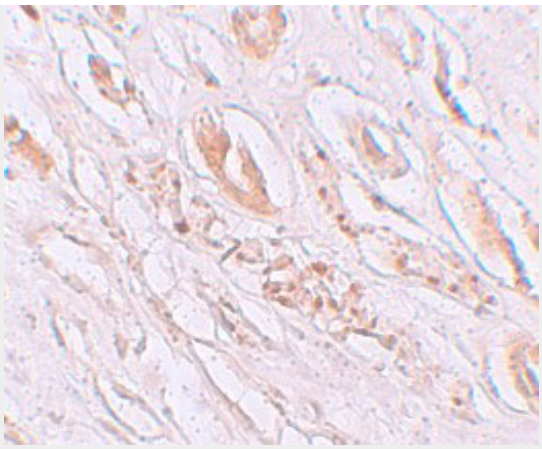
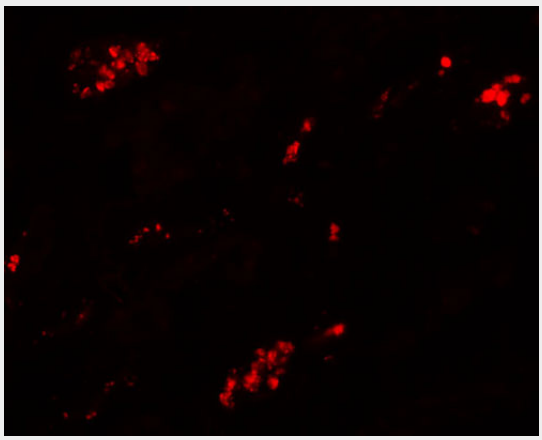


Immunohistochemistry of TMEM59 in human kidney tissue with TMEM59 antibody at 2.5 µg/mL.



Immunofluorescence of TMEM59 in human kidney tissue with TMEM59 antibody at 20 µg/mL.

TMEM59 Antibody - Background

TMEM59 Antibody: Processing of the amyloid precursor protein (APP) by two different proteases, called alpha- and beta-secretase, is a central regulatory event in the generation of the amyloid beta peptide (Abeta), which has a key role in Alzheimer disease (AD) pathogenesis. TMEM59, a Golgi-localized protein, modulates the O-glycosylation and complex N-glycosylation steps occurring during the Golgi maturation of several proteins such as APP, BACE1, SEAP or PRNP. It inhibits APP transport and shedding.

TMEM59 Antibody - References

Schöbel S, Neumann S, Seed B, et al. Expression cloning screen for modifiers of amyloid precursor protein shedding. Int. J. Dev. Neurosci.2006; 24:141-8.
Schöbel S, Neumann S, Hertweck M, et al. A novel sorting nexin modulates endocytic trafficking and alpha-secretase cleavage of the amyloid precursor protein. J. Biol. Chem.2008; 283:14257-68.
Ullrich S, Münch A, Neumann S, et al. The novel membrane protein TMEM59 modulates complex glycosylation, cell surface expression, and secretion of the amyloid precursor protein. J. Biol. Chem.2010; 285:20664-74.
Elson GC, de Coignac AB, Aubry JP, et al. BSMAP, a novel protein expressed specifically in the brain whose gene is localized on chromosome 19p12. Biochem. Biophys. Res. Commun.1999; 264:55-62.