

**TMEM16B Antibody**  
**Catalog # ASC10991****Specification**

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**TMEM16B Antibody - Product Information**

Application	WB, IHC, IF
Primary Accession	<a href="#">O9NQ90</a>
Other Accession	<a href="#">NP_001265525</a> , <a href="#">209862785</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	TMEM16B antibody can be used for detection of TMEM16B by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.

**TMEM16B Antibody - Additional Information**

Gene ID	57101
Target/Specificity	
ANO2;	

**Reconstitution & Storage**

TMEM16B antibody can be stored at 4°C for three months and -20°C, 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**

TMEM16B Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**TMEM16B Antibody - Protein Information**

**Name** ANO2

**Synonyms** C12orf3, TMEM16B

**Function**

Calcium-activated chloride channel (CaCC) which may play a role in olfactory signal transduction. Odorant molecules bind to odor- sensing receptors (OSRs), leading to an increase in calcium entry that activates CaCC current which amplifies the depolarization of the OSR cells, ANO2 seems to be the underlying chloride channel involved in this process. May mediate light perception amplification in retina.

**Cellular Location**

Cell membrane; Multi-pass membrane protein

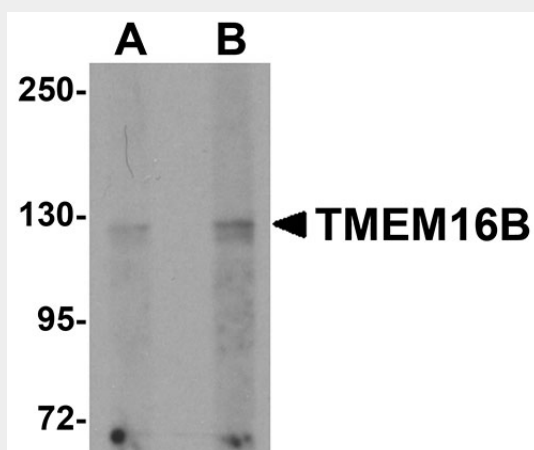
**Tissue Location**

Retina, especially in the photoreceptor synaptic terminals.

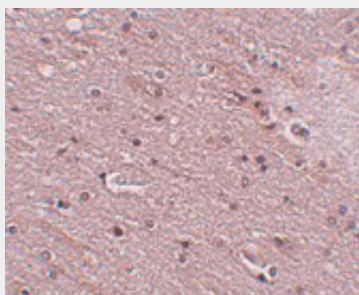
**TMEM16B Antibody - Protocols**

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

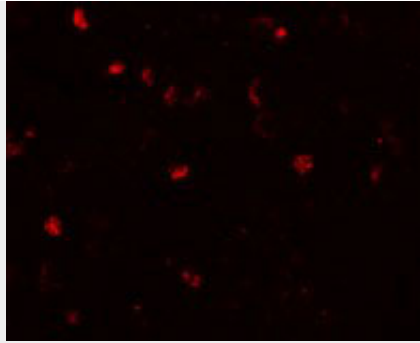
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**TMEM16B Antibody - Images**

Western blot analysis of TMEM16B in rat brain tissue lysate with TMEM16B antibody at (A) 1 and (B) 2  $\mu$ g/mL.



Immunohistochemistry of TMEM16B in human brain tissue with FRMPD4 antibody at 5  $\mu$ g/mL.



Immunofluorescence of TMEM16B in Human Brain cells with TMEM16B antibody at 20 µg/mL.

#### **TMEM16B Antibody - Background**

TMEM16B Antibody: Calcium-activated chloride channels (CaCC) are present in many cell types and mediate physiological functions such as epithelial secretion, sensory signal transduction, and smooth muscle contraction. Subunits of these CaCC's include the transmembrane proteins TMEM16A and TMEM16B. TMEM16B is predicted to have eight transmembrane domains with both the amino and carboxy termini in the cytoplasm and is expressed in several tissues including olfactory sensory neurons as well as photoreceptors in mammalian retina. Like TMEM16A, TMEM16B is thought to form at least part of CaCC's but has different biophysical characteristics such as voltage dependence and unitary conductance.

#### **TMEM16B Antibody - References**

Schroeder BC, Cheng T, Jan YN, et al. Expression cloning of TMEM16A as a calcium-activated chloride channel subunit. *Cell* 2008; 134:1019-29.  
Stephan AB, Shum EY, Hirsh S, et al. ANO2 is the ciliary calcium-activated chloride channel that may mediate olfactory amplification. *Proc. Natl. Acad. Sci. USA* 2009; 106:11776-81.  
Pifferi S, Dibattista M, and Menini A. TMEM16 induces chloride currents activated by calcium in mammalian cells. *Pflügers Arch.* 2009; 458:1023-38.  
Stohr H, Heisig JB, Benz PM, et al. TMEM16B, a novel protein with calcium-dependent chloride channel activity, associates with a presynaptic protein complex in photoreceptor terminals. *J. Neurosci.* 2009; 29:6809-18.