

TMEM16B Antibody

Catalog # ASC10991

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9NQ90
Other Accession	NP_001265525 , 209862785
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	113356
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TMEM16B antibody can be used for detection of TMEM16B by Western blot at 1 - 2 μ g/mL. Antibody can also be used for immunohistochemistry starting at 5 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	57101
Other Names	Anoctamin-2, Transmembrane protein 16B, ANO2, C12orf3, TMEM16B
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.

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

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.

References

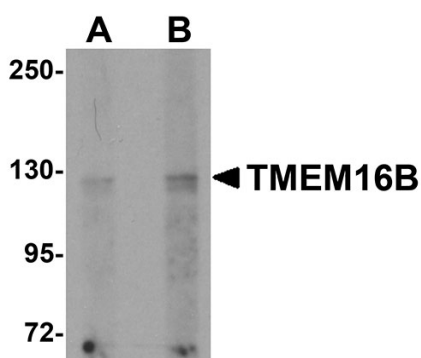
Schroeder BC, Cheng T, Jan YN, et al. Expression cloning of TMEM16A as a calcium-activated chloride channel subunit. *Cell* 2008; 134:1019-29.

Stephan AB, Shum EY, Hirsh S, et al. ANO2 is the cilia calcium-activated chloride channel that may mediate olfactory amplification. *Proc. Natl. Acad. Sci. USA* 2009; 106:11776-81.

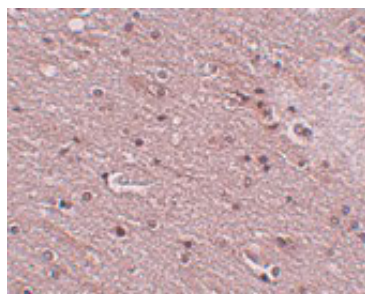
Pifferi S, Dibattista M, and Menini A. TMEM16 induces chloride currents activated by calcium in mammalian cells. *Pflugers Arch.* 2009; 458:1023-38.

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.

Images

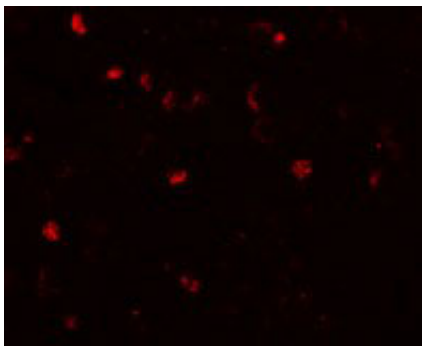


Western blot analysis of TMEM16B in rat brain tissue lysate with TMEM16B antibody at (A) 1 and (B) 2 $\mu\text{g/mL}$.



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

Immunofluorescence of TMEM16B in Human Brain cells with TMEM16B antibody at 20 $\mu\text{g/mL}$.



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