

TMEM16A Antibody Catalog # ASC10990

Specification

TMEM16A Antibody - Product Information

Application WB
Primary Accession Other Accession NP_060513, 194306539

Reactivity Human, Mouse Host Rabbit Clonality Polyclonal

Isotype IgG

Application Notes TMEM16A

antibody can be used for detection of TMEM16A by Western blot at 1

μg/mL.

TMEM16A Antibody - Additional Information

Gene ID 55107 Target/Specificity

ANO1:

Reconstitution & Storage

TMEM16A 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

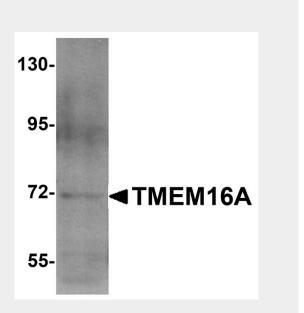
TMEM16A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

TMEM16A Antibody - Protein Information

Name ANO1

Function

Calcium-activated chloride channel (CaCC) which plays a role in transepithelial anion transport and smooth muscle contraction. Required for the normal functioning of the



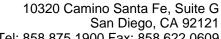
Western blot analysis of TMEM16A in A549 cell lysate with TMEM16A antibody at 1 µg/mL.

TMEM16A Antibody - Background

TMEM16A 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. TMEM16A is expressed in epithelial cells of the kidney and lung, pancreas, and sensory neurons and its mRNA is seen in foregut, airway epithelia, and tracheal smooth muscle; mice lacking TMEM16A fail to survive past ten days and show aerophagia and little weight gain. TMEM16A is also overexpressed or amplified in multiple cancers associated with poor survival such as oral cancers and gastrointestinal stromal tumors, suggesting the development of CaCC modulators may be a viable therapeutic strategy.

TMEM16A Antibody - References

Schroeder BC, Cheng T, Jan YN, et al.



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interstitial cells of Cajal (ICCs) which generate electrical pacemaker activity in gastrointestinal smooth muscles. Acts as a major contributor to basal and stimulated chloride conductance in airway epithelial cells and plays an important role in tracheal cartilage development.

Cellular Location

Cell membrane; Multi-pass membrane protein. Cytoplasm. Note=Cytoplasmic localization seen in neoplastic cells of head and neck squamous cell carcinoma (HNSCC) tumors.

Tissue Location

Broadly expressed with higher levels in liver, skeletal muscle and gastrointestinal muscles

Expression cloning of TMEM16A as a calcium-activated chloride channel subunit. Cell2008; 134:1019-29.

Rock JR, Futtner CR, and Harfe BD. The transmembrane protein TMEM16A is required for normal development of the murine trachea. Dev. Biol.2008; 214:399-411.

Huang X, Godfrey TE, Gooding WE, et al. Comprehensive genome and transcriptome analysis of the 11q13 amplicon in human oral cancer and synteny to the 7F5 amplicon in murine oral carcinoma. Genes Chromosomes Cancer2006: 45:10458-69.

West RB, Corless CL, Chen X, et al. The novel marker, DOG1, is expressed ubiquitously in gastrointestinal stromal tumors irrespective of KIT or PDGRA mutation status. Am. J. Pathol.2004; 165:107-13.

TMEM16A Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture