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

ANO1 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP18347c

Specification

ANO1 Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q5XXA6

ANO1 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 55107

Other Names
Anoctamin-1, Discovered on gastrointestinal stromal tumors protein 1, Oral cancer overexpressed protein 2, Transmembrane protein 16A, Tumor-amplified and overexpressed sequence 2, ANO1, DOG1, ORAOV2, TAOS2, TMEM16A

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ANO1 Antibody (Center) Blocking Peptide - Protein Information

Name ANO1

Function
Calcium-activated chloride channel (CaCC) (PubMed:20056604, PubMed:22178883, PubMed:22946059, PubMed:32487539). Plays a role in transepithelial anion transport and smooth muscle contraction. Required for the normal functioning of the 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. Required for CFTR activation by enhancing endoplasmic reticulum Ca(2+) store release and is also required for CFTR membrane expression (PubMed:28963502). Required for basal and ATP-dependent mucus secretion in airways and intestine, probably by controlling exocytosis of mucus-filled granules by providing Ca(2+) to an apical signaling compartment (By similarity). Contributes to airway mucus expression induced by interleukins IL3 and IL8 and by the asthma-associated protein CLCA1 and is required for expression of mucin MUC5AC (PubMed:<a

href="http://www.uniprot.org/citations/33026825" target="_blank">33026825). However, was shown in another study not to be required for MUC5AC expression (PubMed:31732694). Plays a role in the propagation of Ca(2+) waves in Kolliker's organ in the cochlea and contributes to the refinement of auditory brainstem circuitries prior to hearing onset (By similarity). In vomeronasal sensory neurons, modulates spontaneous firing patterns in the absence of stimuli as well as the firing pattern of pheromone- evoked activity (By similarity). Responsible for calcium-activated chloride channel activity in type I taste cells of the vallate papillae (By similarity). Acts as a heat sensor in nociceptive neurons (By similarity). In dorsal root ganglion neurons, plays a role in mediating non-histaminergic Mas-related G-protein coupled receptor (MRGPR)- dependent itching, acting as a downstream effector of MRGPRs (By similarity). In the developing brain, required for the Ca(2+)-dependent process extension of radial glial cells (By similarity).

Cellular Location
Apical cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q8BHY3}. Presynapse {ECO:0000250|UniProtKB:Q8BHY3}. Note=In differentiating airway epithelial cells, predominantly intracellular at day 0 but is apically localized by day 30. Expressed in the presynapse of retinal neurons (By similarity). {ECO:0000250|UniProtKB:Q8BHY3}

Tissue Location
Expressed in nasal epithelial cells (at protein level) (PubMed:32487539). In the kidney, expressed in the collecting duct (at protein level) (PubMed:24913262). Broadly expressed with higher levels in liver, skeletal muscle and gastrointestinal muscles (PubMed:15215166, PubMed:16906560). Expressed in eccrine sweat glands (PubMed:25220078).

ANO1 Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

ANO1 Antibody (Center) Blocking Peptide - Images

ANO1 Antibody (Center) Blocking Peptide - Background

ANO1 acts as a calcium-activated chloride channel. Required for normal tracheal development (By similarity).

ANO1 Antibody (Center) Blocking Peptide - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)Barro-Soria, R., et al. Pflugers Arch. 459(3):485-497(2010)Hosgood, H.D. III, et al. Occup Environ Med 66(12):848-853(2009)Ferrera, L., et al. J. Biol. Chem. 284(48):33360-33368(2009)Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)