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Product datasheet for TA328785

Ano2 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)HSKRPEQWDLDHSLE, corresponding to amino acid residues 632-646 of mouse Anoctamin-2. 3rd extracellular loop.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.025% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	anoctamin 2
Database Link:	NP_705817 Entrez Gene 100361584 RatEntrez Gene 243634 Mouse Q8CFW1

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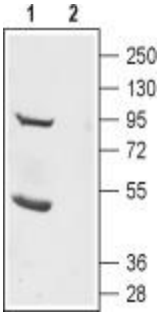
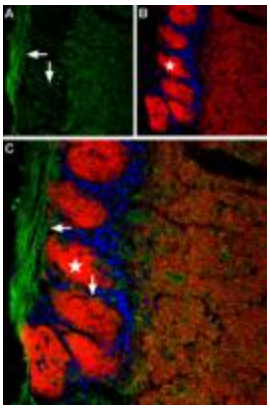
Background: Anoctamin (ANO, or TMEM16) is a family of membrane proteins which includes 10 members. This family is named so because these channels selective to ANions and have eight (OCT) transmembrane domains. Also, these channels are subject to glycosylation in their extracellular loops and have both intracellular N- and C-termini. Members of this family are expressed in a broad range of different organisms ranging from mammals, flies, worms, plants as well as yeast. Alternative splicing is known to affect these channels and regarding their oligomerization state, homedimerization has been observed although when heterologously expressed, these channels may hetero oligomerize. Ano1 (or TMEM16A, DOG1 and others) the first member to be identified was found to be a Ca2+-activated Cl channel therefore other members are likely to also be Cl channels. These channels are expressed in many different tissues: bronchiolar epithelial cells, pancreatic acinar cells, proximal kidney tubule epithelium, retina, dorsal root ganglia and submandibular gland. In fact, Ano1 gained a lot of attention as its activation may serve as a therapeutic treatment for cystic fibrosis since it is also expressed in the airways. These Ca2+-activated Cl channels are believed to play a role in development as knock out of Ano1 in mice causes abnormal development of the trachea. Ano2 (TMEM16B) has been shown to mediate Ca2+-activated Cl current in olfactory epithelium and photoreceptor synapses. Although relatively newly discovered channels, they are being discovered in many medical indications. Ano1 has become a marker in gastrointestinal tumors as its expression is significantly upregulated in such tumors. Similarly, Ano1 is also highly expressed other carcinomas.

Synonyms: C12orf3; DKFZp434P102; TMEM16B

Product images:



Western blot analysis of rat brain lysate: 1. Anti-Anoctamin-2 (extracellular) antibody, (1:200). 2. Anti-Anoctamin-2 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of Anoctamin-2 in mouse olfactory bulb. Immunohistochemical staining of mouse olfactory bulb using Anti-Anoctamin-2 (extracellular) antibody, (1:200). A. Anoctamin-2 is detected in anoctamin-positive axons (arrows). B. Staining with mouse anti-synaptophysin (red) and DAPI (blue) reveals the glomeruli of the olfactory bulb (asterisk). C. Merge of the above images reveals the spatial relationship of the anotctamin-2 positive axons to the olfactory bulb organization.