

Datasheet for ABIN7042927
anti-ANO1 antibody (Extracellular)



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2 Images

Overview

Quantity:	25 µL
Target:	ANO1
Binding Specificity:	AA 679-694, Extracellular
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ANO1 antibody is un-conjugated
Application:	Immunofluorescence (IF), Immunohistochemistry (IHC), Flow Cytometry (FACS), Western Blotting (WB), Live Cell Imaging (LCI)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to Anoctamin-1 (TMEM16A) Channel
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)EYVKRKQRYEVDNLE, corresponding to amino acid residues 679-694 of mouse Anoctamin-1
Isotype:	IgG
Specificity:	3rd extracellular loop
Cross-Reactivity:	Mouse, Rat
Predicted Reactivity:	Rat - 15, human - 14,16 amino acid residues identical
Characteristics:	Anti-TMEM16A (ANO1) (extracellular) Antibody (ABIN7042927, ABIN7044131 and

Product Details

ABIN7044132) is a highly specific antibody directed against an epitope of mouse Anoctamin-1. The antibody can be used in western blot and immunohistochemistry applications. The antibody recognizes an extracellular epitope and could potentially detect the protein in living cells. It has been designed to recognize Anoctamin-1 from mouse, rat, and human samples.

Purification: Affinity purified on immobilized antigen.

Target Details

Target: ANO1

Alternative Name: ANO1 ([ANO1 Products](#))

Background: Anoctamin-1, Transmembrane protein 16A, DOG-1, ORAOV2, TAOS2, Anoctamin (ANO or TMEM16) is a family of 10 membrane proteins. This family is named so because these channels are 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-termini¹. Members of this family are expressed in a broad range of different organisms ranging from mammals, flies, worms, plants and yeast¹. Alternative splicing is known to affect these channels and regarding their oligomerization state, homodimerization has been observed although when heterologously expressed, these channels may hetero oligomerize². Ano1 (or TMEM16A, DOG1 and others) the first member to be identified was found to be a Ca²⁺-activated Cl⁻ channel³⁻⁵ 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 gland¹. 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 airways⁶. These Ca²⁺-activated Cl⁻ channels are believed to play a role in development as knockout of Ano1 in mice causes abnormal development of the trachea⁷. Ano2 (TMEM16B) has been shown to mediate Ca²⁺-activated Cl⁻ current in olfactory epithelium and photoreceptor synapses^{2,8,9}. 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^{10,11}. Similarly, Ano1 is also highly expressed in other carcinomas^{12,13}.

Alternative names: TMEM16A (ANO1), Anoctamin-1, Transmembrane protein 16A, DOG-1, ORAOV2, TAOS2

Gene ID: 101772

Target Details

NCBI Accession: [NM_018043](#)

UniProt: [Q8BHY3](#)

Application Details

Application Notes: Antigen preadsorption control: 1 µg peptide per 1 µg antibody
Application Dilutions Immunohistochemistry paraffin embedded sections ihc: N/A
Application Dilutions Western blot wb: 1:200

Comment: Cited Application: IHC|ICC
Negative Control: (ABIN7234735)
Blocking Peptide: (ABIN7234735)

Restrictions: For Research Use only

Handling

Format: Lyophilized

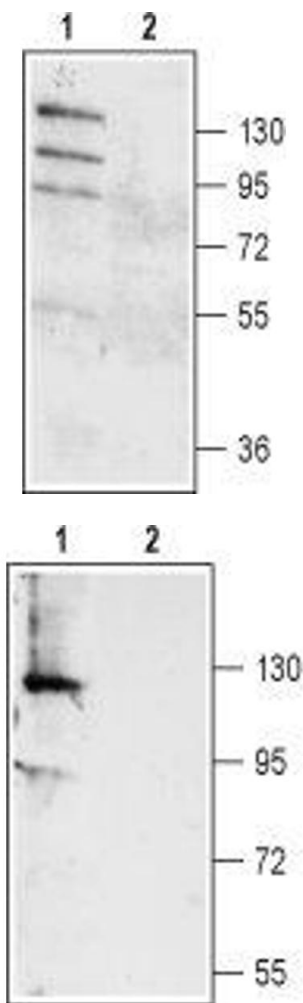
Reconstitution: 0.2 mL double distilled water (DDW).

Concentration: 1 mg/mL

Buffer: PBS pH 7.4

Storage: 4 °C, -20 °C

Storage Comment: Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C.
Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).



Western Blotting

Image 1. Western blot analysis of rat small intestine lysate: -
1. Anti-TMEM16A (ANO1) (extracellular) Antibody (ABIN7042927, ABIN7044131 and ABIN7044132), (1:200). 2. Anti-TMEM16A (ANO1) (extracellular) Antibody, preincubated with TMEM16A/ANO1 (extracellular) Blocking Peptide (#BLP-CL011).

Western Blotting

Image 2. Western blot analysis of rat dorsal root ganglion (DRG) lysate: -
1. Anti-TMEM16A (ANO1) (extracellular) Antibody (ABIN7042927, ABIN7044131 and ABIN7044132), (1:200). 2. Anti-TMEM16A (ANO1) (extracellular) Antibody, preincubated with TMEM16A/ANO1 (extracellular) Blocking Peptide (#BLP-CL011).