

Anti-TMEM16A/ANO1 Antibody Picoband®

Catalog Number: A00713

About ANO1

Anoctamin-1 (ANO1), also known as oral cancer overexpressed 2 (ORAOV2) or tumor-amplified and overexpressed sequence 2 (TMEM16A), is a protein that in humans is encoded by the ANO1 gene. This gene belongs to a family of membrane proteins containing 8 transmembrane segments, and it is mapped to 11q13.3. ANO1 is a candidate calcium-activated chloride channel that mediates receptor-activated chloride currents in diverse physiologic processes, and it is thought to be responsible for a voltage-sensitive calcium-activated chloride current. Its overexpression was reported in esophageal squamous cell carcinoma and breast cancer progression Crofelemer, an antidiarrhoeal, inhibits this channel. ANO1 has eight transmembrane domains, its pore is large and non-selective, allowing other negatively charged species to permeate.

Overview

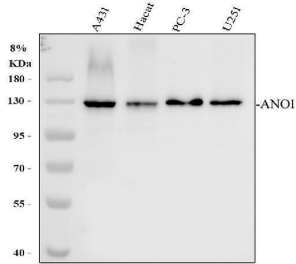
Product Name	Anti-TMEM16A/ANO1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-TMEM16A/ANO1 Antibody Picoband® catalog # A00713. Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q5XXA6

Technical Details

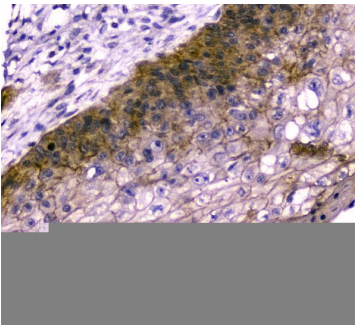
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human TMEM16A, which shares 83.8% amino acid (aa) sequence identity with both mouse and rat TMEM16A.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human

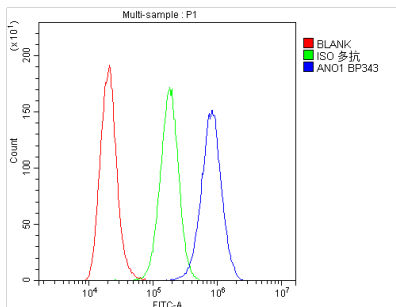
Anti-TMEM16A/ANO1 Antibody Picoband® (A00713) Images



Western blot analysis of TMEM16A using anti-TMEM16A antibody (A00713). Electrophoresis was performed on a 8% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human A431 whole cell lysates, Lane 2: human Hacat whole cell lysates, Lane 3: human PC-3 whole cell lysates, Lane 4: human U251 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-TMEM16A antigen affinity purified polyclonal antibody (A00713) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for TMEM16A at approximately 130 kDa. The expected band size for TMEM16A is at 114 kDa.



IHC analysis of TMEM16A using anti-TMEM16A antibody (A00713). TMEM16A was detected in paraffin-embedded section of human oesophagus squama cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-TMEM16A Antibody (A00713) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Flow Cytometry analysis of A431 cells using anti-TMEM16A antibody (A00713). Overlay histogram showing A431 cells stained with A00713 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-TMEM16A Antibody (A00713, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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