SANTA CRUZ BIOTECHNOLOGY, INC.

ANO1 (S-20): sc-69343

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ANO1 (anoctamin 1), also known as DOG1, ORAOV2, TAOS2 or TMEM16A, is a 986 amino acid multi-pass membrane protein that localizes to both the cell membrane and the cytoplasm and belongs to the anoctamin family. Expressed in a variety of tissues with highest expression in liver, gastrointestinal muscle and skeletal muscle, ANO1 functions as a calcium-activated chloride channel that is required for normal tracheal development. Human ANO1 shares 90% sequence identity with its mouse counterpart, suggesting a conserved role between species. ANO1 is present in breast, pancreatic, gastric, and uterine cancers, as well as in neck, ovarian and parathyroid tumors, suggesting a role for ANO1 in carcinogenesis. Three isoforms of ANO1 exist due to alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: ANO1 (human) mapping to 11q13.3; Ano1 (mouse) mapping to 7 F5.

SOURCE

ANO1 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ANO1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-69343 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

ANO1 (S-20) is recommended for detection of ANO1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ANO1 (S-20) is also recommended for detection of ANO1 in additional species, including equine, canine, bovine, porcine and avian.

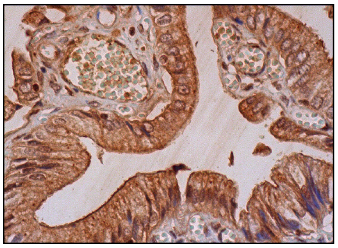
Suitable for use as control antibody for ANO1 siRNA (h): sc-76686, ANO1 siRNA (m): sc-76687, ANO1 shRNA Plasmid (h): sc-76686-SH, ANO1 shRNA Plasmid (m): sc-76687-SH, ANO1 shRNA (h) Lentiviral Particles: sc-76686-V and ANO1 shRNA (m) Lentiviral Particles: sc-76687-V.

Molecular Weight of ANO1: 114 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



ANO1 (S-20): sc-69343. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic and membrane staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Dutta, A.K., et al. 2011. Identification and functional characterization of TMEM16A, a Ca^{2+}-activated Cl^- channel activated by extracellular nucleotides, in biliary epithelium. J. Biol. Chem. 286: 766-776.
2. Sun, H., et al. 2012. Chronic hypoxia-induced upregulation of Ca^{2+}-activated Cl^- channel in pulmonary arterial myocytes: a mechanism contributing to enhanced vasoreactivity. J. Physiol. 590: 3507-3521.
3. Davis, A.J., et al. 2013. Potent vasorelaxant activity of the TMEM16A inhibitor $T16A_{inh}$ -A01. Br. J. Pharmacol. 168: 773-784.
4. Twyffels, L., et al. 2014. Anoctamin-1/TMEM16A is the major apical iodide channel of the thyrocyte. Am. J. Physiol., Cell Physiol. 307: C1102-C1112.

RESEARCH USE

For research use only, not for use in diagnostic procedures.