SANTA CRUZ BIOTECHNOLOGY, INC.

ANO3 (C-15): sc-244372

BACKGROUND

ANO3 (anoctamin 3), also known as TMEM16C (transmembrane protein 16C) or C11orf25, is a 981 amino acid multi-pass membrane protein that is highly expressed in the forebrain striatum and belongs to the anoctamin family. ANO3 has calcium-dependent phospholipid scramblase activity, exists as two isoforms due to alternative splicing events and is encoded by a gene which maps to chromosome 11. With approximately 135 million base pairs and 1,400 genes, chromosome 11 makes up around 4% of human genomic DNA and is considered a gene and disease association dense chromosome. The chromosome 11 encoded Atm gene is important for regulation of cell cycle arrest and apoptosis following double strand DNA breaks. Atm mutation leads to the disorder known as ataxia-telangiectasia. The blood disorders Sickle cell anemia and thalassemia are caused by HBB gene mutations, while Wilms' tumors, WAGR syndrome and Denys-Drash syndrome are associated with mutations of the WT1 gene. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are also associated with defects in chromosome 11.

REFERENCES

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2. Katoh, M., et al. 2004. Identification and characterization of TMEM16E and TMEM16F genes in silico. Int. J. Oncol. 24: 1345-1349.
3. Grossfeld, P.D., et al. 2004. The 11q terminal deletion disorder: a prospective study of 110 cases. Am. J. Med. Genet. A 129: 51-61.
4. Loussouarn, G., et al. 2006. KCNQ1 K^+ channel-mediated cardiac channelopathies. Methods Mol. Biol. 337: 167-183.
5. Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. Nature 440: 497-500.
6. Zehelein, J., et al. 2006. Skipping of Exon 1 in the KCNQ1 gene causes Jervell and Lange-Nielsen syndrome. J. Biol. Chem. 281: 35397-35403.

CHROMOSOMAL LOCATION

Genetic locus: ANO3 (human) mapping to 11p14.2; Ano3 (mouse) mapping to 2 E3.

SOURCE

ANO3 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of ANO3 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-244372 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ANO3 (C-15) is recommended for detection of ANO3 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ANO3 (C-15) is also recommended for detection of ANO3 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for ANO3 siRNA (h): sc-96932, ANO3 siRNA (m): sc-154401, ANO3 shRNA Plasmid (h): sc-96932-SH, ANO3 shRNA Plasmid (m): sc-154401-SH, ANO3 shRNA (h) Lentiviral Particles: sc-96932-V and ANO3 shRNA (m) Lentiviral Particles: sc-154401-V.

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.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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