

# ANO6 (T-13): sc-136932

## BACKGROUND

ANO6 (anoctamin 6), also known as TMEM16F, SCTS or BDPLT7, is a 910 amino acid multi-pass membrane protein that is expressed in retinal tissue, embryonic stem cells and fetal liver, as well as in intestinal cancer and chronic myelogenous leukemia. Scott syndrome (SCTS) is a mild bleeding disorder that is caused by a defect in ANO6. Due to its expression in cancerous tissues, ANO6 may also be involved in tumorigenesis. The gene encoding ANO6 maps to chromosome 12. Encoding over 1,100 genes within 132 million bases, chromosome 12 makes up about 4.5% of the human genome. A number of skeletal deformities are linked to chromosome 12, including hypochondrogenesis, achondrogenesis and Kniest dysplasia. Noonan syndrome, which is characterized by heart and facial developmental defects, is caused by a mutant form of the PTPN11 gene product, SH-PTP2. Chromosome 12 is also home to a homeobox gene cluster which encodes crucial transcription factors for morphogenesis, and the natural killer complex gene cluster encoding C-type lectin proteins which mediate the NK cell response to MHC I interaction.

## 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. Zumkeller, W., et al. 2004. Genotype/phenotype analysis in a patient with pure and complete trisomy 12p. *Am. J. Med. Genet. A* 129: 261-264.
4. Kelley, J., et al. 2005. Comparative genomics of natural killer cell receptor gene clusters. *PLoS Genet.* 1: e27.
5. Nishimura, G., et al. 2005. The phenotypic spectrum of COL2A1 mutations. *Hum. Mutat.* 26: 36-43.
6. Segel, R., et al. 2006. The natural history of trisomy 12p. *Am. J. Med. Genet. A* 140: 695-703.
7. Stein, R. 2007. Genetics of Noonan syndrome-a new gene, and the search is still on. *Clin. Genet.* 72: 402-404.
8. van der Burgt, I. 2007. Noonan syndrome. *Orphanet J. Rare Dis.* 2: 4.

## CHROMOSOMAL LOCATION

Genetic locus: ANO6 (human) mapping to 12q12; Ano6 (mouse) mapping to 15 F1.

## SOURCE

ANO6 (T-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of ANO6 of human origin.

## STORAGE

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

## 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-136932 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ANO6 (T-13) is recommended for detection of ANO6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other TMEM16 family members.

ANO6 (T-13) is also recommended for detection of ANO6 in additional species, including equine.

Suitable for use as control antibody for ANO6 siRNA (h): sc-96071, ANO6 siRNA (m): sc-154404, ANO6 shRNA Plasmid (h): sc-96071-SH, ANO6 shRNA Plasmid (m): sc-154404-SH, ANO6 shRNA (h) Lentiviral Particles: sc-96071-V and ANO6 shRNA (m) Lentiviral Particles: sc-154404-V.

Molecular Weight of ANO6: 106 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.