

# TMEM195 (G-16): sc-244391

## BACKGROUND

TMEM195 (transmembrane protein 195), also known as Alkylglycerol monooxygenase, is a 445 amino acid multi-pass membrane protein that belongs to the sterol desaturase family. TMEM195 cleaves the O-alkyl bond of ether lipids, which are essential components of brain membranes. The gene encoding TMEM195 maps to human chromosome 7, which is about 158 million bases long and encodes over 1000 genes. Chromosome 7 has been linked to Osteogenesis imperfecta, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfourt and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia.

## REFERENCES

- Liang, H., et al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. *Proc. Natl. Acad. Sci. USA* 95: 3781-3785.
- Scherer, S.W., et al. 2003. Human chromosome 7: DNA sequence and biology. *Science* 300: 767-772.
- Brezinová, J., et al. 2007. Structural aberrations of chromosome 7 revealed by a combination of molecular cytogenetic techniques in myeloid malignancies. *Cancer Genet. Cytogenet.* 173: 10-16.
- Renström, F., et al. 2010. Genetic predisposition to long-term non-diabetic deteriorations in glucose homeostasis: ten-year follow-up of the GLACIER Study. *Diabetes* 60: 345-354.
- Boesgaard, T.W., et al. 2010. Variants at DGKB/TMEM195, ADRA2A, GLIS3 and C2CD4B loci are associated with reduced glucose-stimulated  $\beta$  cell function in middle-aged Danish people. *Diabetologia* 53: 1647-1655.
- Akiyama, K., et al. 2010. Genome-wide association study to identify genetic variants present in Japanese patients harboring intracranial aneurysms. *J. Hum. Genet.* 55: 656-661.
- Dupuis, J., et al. 2010. New genetic loci implicated in fasting glucose homeostasis and their impact on type 2 diabetes risk. *Nat. Genet.* 42: 105-116.
- Watschinger, K., et al. 2010. Identification of the gene encoding alkylglycerol monooxygenase defines a third class of tetrahydrobiopterin-dependent enzymes. *Proc. Natl. Acad. Sci. USA* 107: 13672-13677.

## CHROMOSOMAL LOCATION

Genetic locus: AGMO (human) mapping to 7p21.2; Agmo (mouse) mapping to 12 A3.

## SOURCE

TMEM195 (G-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TMEM195 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-244391 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TMEM195 (G-16) is recommended for detection of TMEM195 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); non cross-reactive with other TMEM family members.

TMEM195 (G-16) is also recommended for detection of TMEM195 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TMEM195 siRNA (h): sc-89554, TMEM195 siRNA (m): sc-154431, TMEM195 shRNA Plasmid (h): sc-89554-SH, TMEM195 shRNA Plasmid (m): sc-154431-SH, TMEM195 shRNA (h) Lentiviral Particles: sc-89554-V and TMEM195 shRNA (m) Lentiviral Particles: sc-154431-V.

Molecular Weight of TMEM195: 52 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.