SANTA CRUZ BIOTECHNOLOGY, INC.

TMEM200A (N-17): sc-137547

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The Power to Question

BACKGROUND

TMEM200A (transmembrane protein 200A), also known as TTMA or TTMC, is a 491 amino acid multi-pass membrane protein that is expressed in cerebellum and belongs to the TMEM200 family. The gene encoding TMEM200A maps to human chromosome 6q23.1 and mouse chromosome 10 A4. Making up nearly 6% of the human genome, chromosome 6 contains around 1,200 genes within 170 million base pairs of sequence. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer suggesting the presence of a cancer susceptibility locus. Porphyria cutanea tarda is associated with chromosome 6 through the HFE gene which, when mutated, predisposes an individual to developing this porphyria. Stickler syndrome, Parkinson's disease, 21-hydroxylase deficiency and maple syrup urine disease are also associated with genes on chromosome 6. A bipolar disorder susceptibility locus has been identified on the q arm of chromosome 6.

REFERENCES

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2. Edelmann, L., et al. 2001. Maple syrup urine disease: identification and carrier-frequency determination of a novel founder mutation in the Ashkenazi Jewish population. Am. J. Hum. Genet. 69: 863-868.
3. Cesari, R., et al. 2003. Parkin, a gene implicated in autosomal recessive juvenile parkinsonism, is a candidate tumor suppressor gene on chromosome 6q25-q27. Proc. Natl. Acad. Sci. USA 100: 5956-5961.
4. Hattori, N. 2004. Etiology and pathogenesis of Parkinson's disease: from mitochondrial dysfunctions to familial Parkinson's disease. Rinsho Shinkeigaku 44: 241-262.
5. Forest, M.G., et al. 2005. 21-Hydroxylase deficiency: an exemplary model of the contribution of molecular biology in the understanding and management of the disease. Ann. Endocrinol. 66: 225-232.
6. Bläker, H., et al. 2008. Recurrent deletions at 6q in early age of onset non-HNPCC- and non-FAP-associated intestinal carcinomas. Evidence for a novel cancer susceptibility locus at 6q14-q22. Genes Chromosomes Cancer 47: 159-164.
7. Fan, J., et al. 2010. Linkage disequilibrium mapping of the chromosome 6q21-22.31 bipolar I disorder susceptibility locus. Am. J. Med. Genet. B Neuropsychiatr. Genet. 153B: 29-37.
8. Jalil, S., et al. 2010. Associations among behavior-related susceptibility factors in porphyria cutanea tarda. Clin. Gastroenterol. Hepatol. 8: 297-302.

CHROMOSOMAL LOCATION

Genetic locus: TMEM200A (human) mapping to 6q23.1; Tmem200a (mouse) mapping to 10 A4.

SOURCE

TMEM200A (N-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of TMEM200A 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-137547 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TMEM200A (N-17) is recommended for detection of TMEM200A of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), 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 KIAA family members.

TMEM200A (N-17) is also recommended for detection of TMEM200A in additional species, including equine and porcine.

Suitable for use as control antibody for TMEM200A siRNA (h): sc-95402, TMEM200A siRNA (m): sc-146461, TMEM200A shRNA Plasmid (h): sc-95402-SH, TMEM200A shRNA Plasmid (m): sc-146461-SH, TMEM200A shRNA (h) Lentiviral Particles: sc-95402-V and TMEM200A shRNA (m) Lentiviral Particles: sc-146461-V.

Molecular Weight of TMEM200A: 54 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) 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.

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.