

# TMCC2 (S-13): sc-137851

## BACKGROUND

TMCC2 (transmembrane and coiled-coil domains protein 2), also known as cerebral protein 11, is a 709 amino acid multi-pass membrane protein that belongs to the TEX28 family. The gene that encodes TMCC2 contains approximately 45,434 bases and maps to human chromosome 1q32.1. Chromosome 1 is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. There are about 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1. Notably, the rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene which encodes lamin A. When defective, the LMNA gene product can build up in the nucleus and cause characteristic nuclear blebs. The mechanism of rapidly enhanced aging is unclear and is a topic of continuing exploration. The MUTYH gene is located on chromosome 1 and is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1.

## REFERENCES

1. Dobbie, Z., et al. 1997. Identification of a modifier gene locus on chromosome 1p35-36 in familial adenomatous polyposis. *Hum. Genet.* 99: 653-657.
2. Eudy, J.D., et al. 1998. Isolation of a gene encoding a novel member of the nuclear receptor superfamily from the critical region of Usher syndrome type IIa at 1q41. *Genomics* 50: 382-384.
3. Eudy, J.D., et al. 1998. Mutation of a gene encoding a protein with extracellular matrix motifs in Usher syndrome type IIa. *Science* 280: 1753-1757.
4. Lau, E.K., et al. 1999. Two novel polymorphic sequences in the glucocerebrosidase gene region enhance mutational screening and founder effect studies of patients with Gaucher disease. *Hum. Genet.* 104: 293-300.
5. Bowling, E.L., et al. 2000. The Stickler syndrome: case reports and literature review. *Optometry* 71: 177-182.
6. Tayebi, N., et al. 2001. Gaucher disease and parkinsonism: a phenotypic and genotypic characterization. *Mol. Genet. Metab.* 73: 313-321.
7. Plasilova, M., et al. 2004. Exclusion of an extracolonic disease modifier locus on chromosome 1p33-36 in a large Swiss familial adenomatous polyposis kindred. *Eur. J. Hum. Genet.* 12: 365-371.

## CHROMOSOMAL LOCATION

Genetic locus: TMCC2 (human) mapping to 1q32.1; Tmcc2 (mouse) mapping to 1 E4.

## SOURCE

TMCC2 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TMCC2 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-137851 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TMCC2 (S-13) is recommended for detection of TMCC2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 TMCC1 or TMCC3.

TMCC2 (S-13) is also recommended for detection of TMCC2 in additional species, including canine and porcine.

Suitable for use as control antibody for TMCC2 siRNA (h): sc-88169, TMCC2 siRNA (m): sc-154322, TMCC2 shRNA Plasmid (h): sc-88169-SH, TMCC2 shRNA Plasmid (m): sc-154322-SH, TMCC2 shRNA (h) Lentiviral Particles: sc-88169-V and TMCC2 shRNA (m) Lentiviral Particles: sc-154322-V.

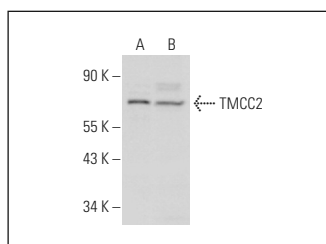
Molecular Weight of TMCC2: 77 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



TMCC2 (S-13): sc-137851. Western blot analysis of TMCC2 expression in HeLa (A) and NIH/3T3 (B) whole cell lysates.

## 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.