

TMED9 (T-17): sc-248851

BACKGROUND

TMED9 (transmembrane emp24 domain-containing protein 9), also known as GP25L2 (glycoprotein 25L2), is a 235 amino acid single-pass type I membrane protein that belongs to the EMP24/GP25L family and contains one GOLD domain. The gene that encodes TMED9 consists of nearly 4,000 bases and maps to human chromosome 5q35.3. Chromosome 5 contains 181 million base pairs and comprises nearly 6% of the human genome. Chromosome 5 is associated with Cockayne syndrome through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is also chromosome 5-associated and is caused by insertions or deletions within the TCOF1 gene. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm or of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

- Edwards, S.J., et al. 1997. The mutational spectrum in Treacher Collins syndrome reveals a predominance of mutations that create a premature-termination codon. *Am. J. Hum. Genet.* 60: 515-524.
- McDaniel, L.D., et al. 1997. Confirmation of homozygosity for a single nucleotide substitution mutation in a Cockayne syndrome patient using monoallelic mutation analysis in somatic cell hybrids. *Hum. Mutat.* 10: 317-321.
- Crawford, M.J., et al. 1997. Human and murine PTX1/Ptx1 gene maps to the region for Treacher Collins syndrome. *Mamm. Genome* 8: 841-845.
- Finch, R., et al. 2005. Familial adenomatous polyposis and mental retardation caused by a *de novo* chromosomal deletion at 5q15-q22: report of a case. *Dis. Colon Rectum.* 48: 2148-2152.
- Anindya, R., et al. 2007. Damage-induced ubiquitylation of human RNA polymerase II by the ubiquitin ligase Nedd4, but not Cockayne syndrome proteins or BRCA1. *Mol. Cell* 28: 386-397.

CHROMOSOMAL LOCATION

Genetic locus: TMED9 (human) mapping to 5q35.3; Tmed9 (mouse) mapping to 13 B1.

SOURCE

TMED9 (T-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TMED9 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-248851 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

TMED9 (T-17) is recommended for detection of TMED9 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 other TMED family members.

TMED9 (T-17) is also recommended for detection of TMED9 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TMED9 siRNA (h): sc-91723, TMED9 siRNA (m): sc-154337, TMED9 shRNA Plasmid (h): sc-91723-SH, TMED9 shRNA Plasmid (m): sc-154337-SH, TMED9 shRNA (h) Lentiviral Particles: sc-91723-V and TMED9 shRNA (m) Lentiviral Particles: sc-154337-V.

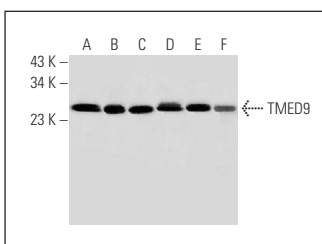
Molecular Weight of TMED9: 27 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NIH/3T3 whole cell lysate: sc-2210 or A2058 whole cell lysate: sc-364178.

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



TMED9 (T-17): sc-248851. Western blot analysis of TMED9 expression in HeLa (A), NIH/3T3 (B), A2058 (C) and RT-4 (D) whole cell lysates and mouse brain (E) and mouse pancreas (F) tissue extracts.

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.