

TAMM41 (S-13): sc-99790

BACKGROUND

C3orf31 (chromosome 3 open reading frame 31), also known as MGC16471 or DKFZp434E0519, is a 316 amino acid mitochondrial protein that belongs to the MMP37 family and may be involved in translocation of transit peptide-containing proteins across the mitochondrial inner membrane. C3orf24 is encoded by a gene that maps to human chromosome 3p25.2. Chromosome 3 is made up of approximately 214 million bases encoding over 1,100 genes. Notably, there is a chemokine receptor gene cluster and a variety of human cancer related loci on chromosome 3. Particular regions of the chromosome 3 short arm are deleted in many types of cancer cells. Key tumor suppressing genes on chromosome 3 encode apoptosis mediator RASSF1, cell migration regulator HYAL1 and angiogenesis suppressor SEMA3B. Marfan syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

REFERENCES

- Müller, S., et al. 2000. Molecular cytogenetic dissection of human chromosomes 3 and 21 evolution. *Proc. Natl. Acad. Sci. USA* 97: 206-211.
- Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. *Mol. Biol.* 37: 194-211.
- Tsend-Ayush, E., et al. 2004. Plasticity of human chromosome 3 during primate evolution. *Genomics* 83: 193-202.
- Yue, Y., et al. 2005. Comparative cytogenetics of human chromosome 3q21.3 reveals a hot spot for ectopic recombination in hominoid evolution. *Genomics* 85: 36-47.
- Darai, E., et al. 2005. Evolutionarily plastic regions at human 3p21.3 coincide with tumor breakpoints identified by the "elimination test." *Genomics* 86: 1-12.
- Yue, Y., et al. 2005. Genomic structure and paralogous regions of the inversion breakpoint occurring between human chromosome 3p12.3 and orangutan chromosome 2. *Cytogenet. Genome Res.* 108: 98-105.
- Muzny, D.M., et al. 2006. The DNA sequence, annotation and analysis of human chromosome 3. *Nature* 440: 1194-1198.
- Nareyck, G., et al. 2006. Establishment and characterization of two uveal melanoma cell lines derived from tumors with loss of one chromosome 3. *Exp. Eye Res.* 83: 858-864.

CHROMOSOMAL LOCATION

Genetic locus: TAMM41 (human) mapping to 3p25.2; 1500001M20Rik (mouse) mapping to 6 E3.

SOURCE

TAMM41 (S-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of TAMM41 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-99790 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TAMM41 (S-13) is recommended for detection of TAMM41 of human origin, 1500001M20Rik of mouse origin and the corresponding rat homolog 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 C3orf family members.

TAMM41 (S-13) is also recommended for detection of TAMM41 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TAMM41 siRNA (h): sc-78537, 1500001M20Rik siRNA (m): sc-108232, TAMM41 shRNA Plasmid (h): sc-78537-SH, 1500001M20Rik siRNA Plasmid (m): sc-108232-SH, TAMM41 shRNA (h) Lentiviral Particles: sc-78537-V and 1500001M20Rik siRNA (m) Lentiviral Particles: sc-108232-V.

Molecular Weight (predicted) of TAMM41: 36 kDa.

Molecular Weight (observed) of TAMM41: 33 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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.

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.