

TAPT1 (T-16): sc-165649

BACKGROUND

TAPT1 (transmembrane anterior posterior transformation protein 1 homolog), also known as cytomegalovirus partial fusion receptor (CMVFR), is a 567 amino acid multi-pass membrane protein belonging to the TAPT1 family. TAPT1 is ubiquitously expressed and highly conserved, and may function as a transmitter of extracellular information required for axial skeletal patterning during development. TAPT1 exists as two alternatively spliced isoforms, and is encoded by a gene that maps to human chromosome 4p15.32. Chromosome 4 represents approximately 6% of the human genome and contains nearly 900 genes. The Huntingtin gene, which is found to encode an expanded glutamine tract in cases of Huntington's disease, is located on chromosome 4. FGFR-3 is also encoded by a gene that maps to human chromosome 4 and has been associated with thanatophoric dwarfism, achondroplasia, Muenke syndrome and bladder cancer. Chromosome 4 is also tied to Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

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3. Singhrao, S.K., et al. 1998. Huntingtin protein colocalizes with lesions of neurodegenerative diseases: An investigation in Huntington's, Alzheimer's, and Pick's diseases. *Exp. Neurol.* 150: 213-222.
4. Krakow, D., et al. 2000. Exclusion of the Ellis-van Creveld region on chromosome 4p16 in some families with asphyxiating thoracic dystrophy and short-rib polydactyly syndromes. *Eur. J. Hum. Genet.* 8: 645-648.
5. Sommardahl, C., et al. 2001. Phenotypic variations of orpk mutation and chromosomal localization of modifiers influencing kidney phenotype. *Physiol. Genomics* 7: 127-134.
6. Utine, G.E., et al. 2006. Mosaicism for terminal deletion of 4q. *Genet. Couns.* 17: 205-209.
7. Howell, G.R., et al. 2007. Mutation of a ubiquitously expressed mouse transmembrane protein (Tapt1) causes specific skeletal homeotic transformations. *Genetics* 175: 699-707.

CHROMOSOMAL LOCATION

Genetic locus: TAPT1 (human) mapping to 4p15.32; Tapt1 (mouse) mapping to 5 B3.

SOURCE

TAPT1 (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TAPT1 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 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-165649 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TAPT1 (T-16) is recommended for detection of TAPT1 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).

TAPT1 (T-16) is also recommended for detection of TAPT1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TAPT1 siRNA (h): sc-89016, TAPT1 siRNA (m): sc-154070, TAPT1 shRNA Plasmid (h): sc-89016-SH, TAPT1 shRNA Plasmid (m): sc-154070-SH, TAPT1 shRNA (h) Lentiviral Particles: sc-89016-V and TAPT1 shRNA (m) Lentiviral Particles: sc-154070-V.

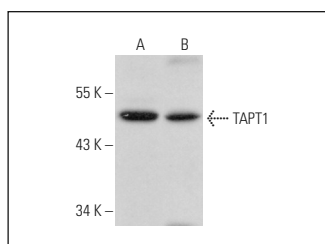
Molecular Weight of TAPT1 isoforms 1/2: 64 kDa.

Positive Controls: mouse embryo extract: sc-364239 or mouse testis extract: sc-2405.

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



TAPT1 (T-16): sc-165649. Western blot analysis of TAPT1 expression in mouse embryo (A) and mouse testis (B) tissue extracts.

RESEARCH USE

For research use only, not for use in diagnostic procedures.