

TULP1 (N-19): sc-7684

BACKGROUND

Mutations in the mouse Tub gene gradually lead to obesity, strongly resembling the late-onset obesity observed in the human population. In addition to excessive deposition of adipose tissue, mice with the Tub phenotype also suffer retinal degeneration and neurosensory hearing loss. A human homolog of the Tub gene has been identified, as have three related proteins, called Tubby-like protein 1 (TULP1), TULP2 and TULP3. When compared to TULP1 and TULP2, TULP3 has a wider tissue expression and is phylogenetically more similar to Tub than either TULP1 or TULP2. TULP1, expressed specifically in the retina, maps to the chromosomal region known to be involved in retinitis pigmentosa, while TULP2 maps within the minimal interval for the rod-cone dystrophy. TULP3 maps to human chromosome 12p13 and shares 69% homology to mouse TULP3. Human RNA from testis, ovary, thyroid and spinal cord contain highly detectable levels of TULP3 transcripts. In the retina, TULP3 is expressed specifically in the inner nuclear layer and ganglion cell layer. TULP1, TULP2 and TULP3 may comprise a unique family of bipartite transcription factors.

REFERENCES

- Ohlemiller, K.K., et al. 1995. Cochlear and retinal degeneration in the Tubby mouse. *Neuroreport* 6: 845-849.
- Noben-Trauth, K., et al. 1996. A candidate gene for the mouse mutation Tubby. *Nature* 380: 534-538.
- North, M.A., et al. 1997. Molecular characterization of Tub, TULP1, and TULP2, members of the novel Tubby gene family and their possible relation to ocular diseases. *Proc. Natl. Acad. Sci. USA* 94: 3128-3133.
- Gu, S., et al. 1998. Tubby-like protein-1 mutations in autosomal recessive retinitis pigmentosa. *Lancet* 351: 1103-1104.
- Hagstrom, S.A., et al. 1998. Recessive mutations in the gene encoding the Tubby-like protein TULP1 in patients with retinitis pigmentosa. *Nat. Genet.* 18: 174-176.
- Banerjee, P., et al. 1998. TULP1 mutation in two extended Dominican kindreds with autosomal recessive retinitis pigmentosa. *Nat. Genet.* 18: 177-179.

CHROMOSOMAL LOCATION

Genetic locus: TULP1 (human) mapping to 6p21.31; Tulp1 (mouse) mapping to 17 A3.3.

SOURCE

TULP1 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TULP1 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.

RESEARCH USE

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

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-7684 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TULP1 (N-19) is recommended for detection of TULP1 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).

TULP1 (N-19) is also recommended for detection of TULP1 in additional species, including canine and bovine.

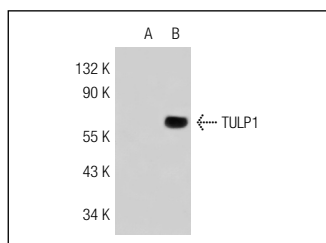
Suitable for use as control antibody for TULP1 siRNA (h): sc-106862, TULP1 siRNA (m): sc-77391, TULP1 shRNA Plasmid (h): sc-106862-SH, TULP1 shRNA Plasmid (m): sc-77391-SH, TULP1 shRNA (h) Lentiviral Particles: sc-106862-V and TULP1 shRNA (m) Lentiviral Particles: sc-77391-V.

Positive Controls: TULP1 (h): 293T Lysate: sc-115283.

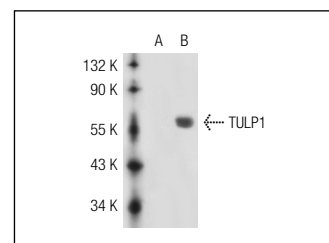
RECOMMENDED SECONDARY REAGENTS

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



TULP1 (N-19): sc-7684. Western blot analysis of TULP1 expression in non-transfected: sc-117752 (A) and human TULP1 transfected: sc-115283 (B) 293T whole cell lysates.



TULP1 (N-19): sc-7684. Western blot analysis of TULP1 expression in non-transfected: sc-117752 (A) and human TULP1 transfected: sc-117071 (B) 293T whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.