

TULP3 (G-4): sc-514733

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 12p13.33, 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

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4. Gu, S., et al. 1998. Tubby-like protein-1 mutations in autosomal recessive retinitis pigmentosa. *Lancet* 351: 1103-1104.
5. 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.
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CHROMOSOMAL LOCATION

Genetic locus: TULP3 (human) mapping to 12p13.33.

SOURCE

TULP3 (G-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-24 at the N-terminus of TULP3 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514733 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

TULP3 (G-4) is recommended for detection of TULP3 of human origin by Western Blotting (starting dilution 1:100, 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).

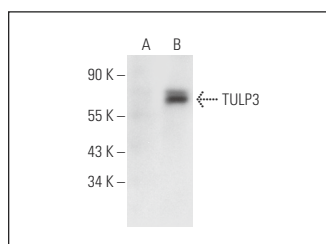
Suitable for use as control antibody for TULP3 siRNA (h): sc-77355, TULP3 shRNA Plasmid (h): sc-77355-SH and TULP3 shRNA (h) Lentiviral Particles: sc-77355-V.

Positive Controls: TULP3 (h): 293T Lysate: sc-115216.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



TULP3 (G-4): sc-514733. Western blot analysis of TULP3 expression in non-transfected: sc-117752 (A) and human TULP3 transfected: sc-115216 (B) 293T 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.