SANTA CRUZ BIOTECHNOLOGY, INC.

TULP2 (F-1): sc-515085

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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

1. Ohlemiller, K.K., et al. 1995. Cochlear and retinal degeneration in the tubby mouse. Neuroreport 6: 845-849.
2. Noben-Trauth, K., et al. 1996. A candidate gene for the mouse mutation tubby. Nature 380: 534-538.
3. 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.
4. Gu, S., et al. 1998. Tubby-like protein-1 mutations in autosomal recessive retinitis pigmentosa. Lancet 351: 1103-1104.

CHROMOSOMAL LOCATION

Genetic locus: TULP2 (human) mapping to 19q13.33; Tulp2 (mouse) mapping to 7 B4.

SOURCE

TULP2 (F-1) is a mouse monoclonal antibody raised against amino acids 154-320 mapping within an internal region of TULP2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TULP2 (F-1) is available conjugated to agarose (sc-515085 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515085 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515085 PE), fluorescein (sc-515085 FITC), Alexa Fluor® 488 (sc-515085 AF488), Alexa Fluor® 546 (sc-515085 AF546), Alexa Fluor® 594 (sc-515085 AF594) or Alexa Fluor® 647 (sc-515085 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515085 AF680) or Alexa Fluor® 790 (sc-515085 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TULP2 (F-1) is recommended for detection of TULP2 of mouse, rat and 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 TULP2 siRNA (h): sc-106650, TULP2 siRNA (m): sc-77392, TULP2 shRNA Plasmid (h): sc-106650-SH, TULP2 shRNA Plasmid (m): sc-77392-SH, TULP2 shRNA (h) Lentiviral Particles: sc-106650-V and TULP2 shRNA (m) Lentiviral Particles: sc-77392-V.

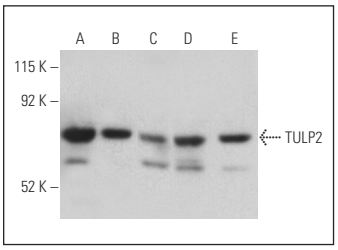
Molecular Weight of TULP2: 59 kDa.

Positive Controls: human testis extract: sc-363781, HeLa whole cell lysate: sc-2200 or A549 cell lysate: sc-2413.

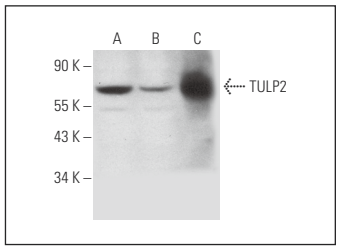
RECOMMENDED SUPPORT REAGENTS

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



TULP2 (F-1): sc-515085. Western blot analysis of TULP2 expression in HeLa (**A**), A549 (**B**), ALL-SIL (**C**), F9 (**D**) and KNRK (**E**) whole cell lysates. Detection reagent used: m-IgG_1 BP-HRP: sc-525408.



TULP2 (F-1): sc-515085. Western blot analysis of TULP2 expression in HeLa (**A**) and A549 (**B**) whole cell lysates and human testis tissue extract (**C**).

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.

PROTOCOLS

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