

Tub (40): sc-136112

BACKGROUND

In contrast to the rapid early-onset weight gain seen in Ob/Ob mice, mutations in the Tub gene lead to obesity gradually and strongly resemble late-onset obesity as seen 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. The tripartite character of tubby phenotype is strikingly similar to human obesity syndromes such as Alström and Bardet-Biedl. A candidate for the Tub gene has been described. A G → T transversion in this candidate gene eliminates a donor splice site in the 3' coding region resulting in a larger transcript containing an unspliced intron. A second prematurely truncated mRNA transcript with the unspliced intron was found to be expressed in the brains of tubby mice at a 2-3 fold higher rate as compared to B6 mice. It has been postulated that the phenotypic features of tubby mice can be attributed to cellular apoptosis triggered by the expression of a mutated Tub gene.

REFERENCES

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4. Heckenlively, J.R., Chang, B., Erway, L.C., Peng, C., Hawes, N.L., Hageman, G.S. and Roderick, T.H. 1995. Mouse model for Usher syndrome: linkage mapping suggests homology to Usher type I reported at human chromosome 11p15. *Proc. Natl. Acad. Sci. USA* 92: 11100-11104.
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6. Noben-Trauth, K., Naggert, J.K., North, M.A. and Nishina, P.M. 1996. A candidate gene for the mouse mutation tubby. *Nature* 380: 534-538.

CHROMOSOMAL LOCATION

Genetic locus: TUB (human) mapping to 11p15.4; Tub (mouse) mapping to 7 E3.

SOURCE

Tub (40) is a mouse monoclonal antibody raised against amino acids 102-205 of Tub of mouse origin.

PRODUCT

Each vial contains 50 µg IgG₁ in 500 µl PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

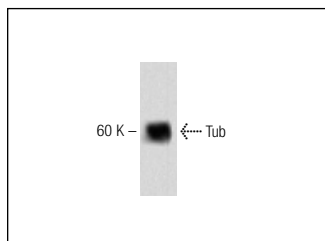
Tub (40) is recommended for detection of Tub of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Tub siRNA (h): sc-44176, Tub siRNA (m): sc-60073, Tub shRNA Plasmid (h): sc-44176-SH, Tub shRNA Plasmid (m): sc-60073-SH, Tub shRNA (h) Lentiviral Particles: sc-44176-V and Tub shRNA (m) Lentiviral Particles: sc-60073-V.

Molecular Weight of Tub: 60 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, mouse brain extract: sc-2253 or SH-SY5Y cell lysate: sc-3812.

DATA



Tub (40): sc-136112. Western blot analysis of Tub expression in mouse cerebrum tissue extract.

RESEARCH USE

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

PROTOCOLS

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