

TBCB (m): 293T Lysate: sc-127638

BACKGROUND

Microtubules, the primary component of the cytoskeletal network, are highly dynamic structures composed of α/β Tubulin heterodimers. Biosynthesis of functional microtubules involve the participation of several chaperones, termed tubulin folding cofactors A (TBCA), B (TBCB), D (TBCD), E (TBCE) and C (TBCC), that act on folding intermediates downstream of the cytosolic chaperon, alternatively named TCP. TBCB (Tubulin folding cofactor B), also known as CG22, CKAP1 or CKAPI, is a 244 amino acid cytoplasmic protein containing one CAP-Gly domain and is widely expressed. TBCB is involved in the regulation of Tubulin heterodimer dissociation and may function as a negative regulator of axonal growth.

REFERENCES

1. Tian, G., et al. 1996. Pathway leading to correctly folded β -Tubulin. *Cell* 86: 287-296.
2. Tian, G., et al. 1997. Tubulin subunits exist in an activated conformational state generated and maintained by protein cofactors. *J. Cell Biol.* 138: 821-832.
3. Grynberg, M., et al. 2003. Domain analysis of the Tubulin cofactor system: a model for tubulin folding and dimerization. *BMC Bioinformatics* 4: 46.
4. Wang, W., et al. 2005. Gigaxonin interacts with tubulin folding cofactor B and controls its degradation through the ubiquitin-proteasome pathway. *Curr. Biol.* 15: 2050-2055.
5. Vadlamudi, R.K., et al. 2005. p21-activated kinase 1 regulates microtubule dynamics by phosphorylating tubulin cofactor B. *Mol. Cell. Biol.* 25: 3726-3736.
6. Kortazar, D., et al. 2007. Role of cofactors B (TBCB) and E (TBCE) in Tubulin heterodimer dissociation. *Exp. Cell Res.* 313: 425-436.
7. Lopez-Fanarraga, M., et al. 2007. Tubulin cofactor B plays a role in the neuronal growth cone. *J. Neurochem.* 100: 1680-1687.
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CHROMOSOMAL LOCATION

Genetic locus: *Tbcb* (mouse) mapping to 7 B1.

PRODUCT

TBCB (m): 293T Lysate represents a lysate of mouse TBCB transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

TBCB (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive TBCB antibodies. Recommended use: 10-20 μ l per lane.

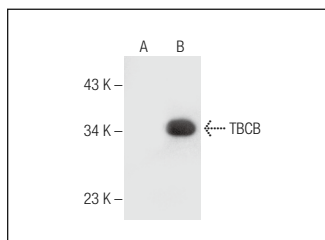
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TBCB (B-12): sc-377139 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse TBCB expression in TBCB transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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.

DATA



TBCB (B-12): sc-377139. Western blot analysis of TBCB expression in non-transfected: sc-117752 (A) and mouse TBCB transfected: sc-127638 (B) 293T whole cell lysates.

RESEARCH USE

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