

TBCK (h3): 293 Lysate: sc-158727

BACKGROUND

TBCK (TBC domain-containing protein kinase-like protein) also known as TBCKL or MGC16169 in human and A630047E20Rik in mice, is an 893 amino acid protein belonging to the protein kinase superfamily. TBCK contains one protein kinase domain, a Rab-GAP TBC domain and one rhodanese domain. Four TBCK isoforms are produced by alternative splicing events, and the gene encoding TBCK maps to human chromosome 4q24. Chromosome 4 represents approximately 6% of the human genome and contains nearly 900 genes. Notably, the Huntingtin gene, which is found to encode an expanded glutamine tract in cases of Huntington's disease, is on chromosome 4. FGFR-3 is also encoded on chromosome 4 and has been associated with thanatophoric dwarfism, achondroplasia, Muenke syndrome and bladder cancer. Chromosome 4 is also tied to Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

1. Dobson, C.M., et al. 2002. Identification of the gene responsible for the cblA complementation group of vitamin B₁₂-responsive methylmalonic acidemia based on analysis of prokaryotic gene arrangements. *Proc. Natl. Acad. Sci. U.S.A.* 99: 15554-15559.
2. Cowan, C.M. and Raymond, L.A. 2006. Selective neuronal degeneration in Huntington's disease. *Curr. Top. Dev. Biol.* 75: 25-71.
3. Chandler, R.J., et al. 2007. Metabolic phenotype of methylmalonic acidemia in mice and humans: the role of skeletal muscle. *BMC Med. Genet.* 8: 64.
4. Cunningham, M.L., et al. 2007. Syndromic craniosynostosis: from history to hydrogen bonds. *Orthod. Craniofac. Res.* 10: 67-81.
5. de Frutos, C.A., et al. 2007. Snail1 is a transcriptional effector of FGFR3 signaling during chondrogenesis and achondroplasias. *Dev. Cell* 13: 872-883.
6. Ruiz-Perez, V.L., et al. 2007. EVC is a positive mediator of Ihh-regulated bone growth that localises at the base of chondrocyte cilia. *Development* 134: 2903-2912.
7. Stack, E.C., et al. 2007. Neuroprotective effects of synaptic modulation in Huntington's disease R6/2 mice. *J. Neurosci.* 27: 12908-12915.
8. Versteegh, F.G., et al. 2007. EVC working party. Growth hormone analysis and treatment in Ellis-van Creveld syndrome. *Am. J. Med. Genet.* 143: 2113-2121.

CHROMOSOMAL LOCATION

Genetic locus: TBCK (human) mapping to 4q24.

PRODUCT

TBCK (h3): 293 Lysate represents a lysate of human TBCK transfected 293 cells and is provided as 100 µg protein in 200 µl 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.

APPLICATIONS

TBCK (h3): 293 Lysate is suitable as a Western Blotting positive control for human reactive TBCK antibodies. Recommended use: 10-20 µl per lane.

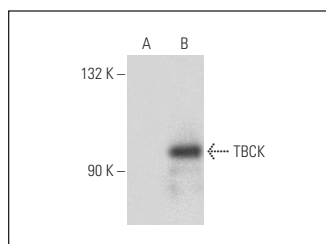
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

TBCK (WW-8): sc-81865 is recommended as a positive control antibody for Western Blot analysis of enhanced human TBCK expression in TBCK transfected 293 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-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.

DATA



TBCK (WW-8): sc-81865. Western blot analysis of TBCK expression in non-transfected: sc-110760 (A) and human TBCK transfected: sc-158727 (B) 293 whole cell lysates.

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.