



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

Tropomyosin β (h): 293T Lysate: sc-159612

BACKGROUND

Tropomyosin β , also known as TPM2 or TMSB, is a 284 amino acid protein that localizes to both the cytoplasm and the cytoskeleton and belongs to the Tropomyosin family of structural proteins. Existing as a heterodimer with a Tropomyosin α protein, Tropomyosin β functions to bind Actin filaments in muscle and non-muscle cells and, via this binding, plays a central role in the regulation of striated muscle contraction and in the stabilization of cytoskeletal Actin filaments. Tropomyosin β is expressed as multiple alternatively spliced isoforms and is present in primary breast cancer tissues, suggesting a role in tumor formation and metastasis. Defects in the gene encoding Tropomyosin β are the cause of nemaline myopathy type 4 (NEM4) and distal arthrogryposis type 1 (DA1), the former of which is a form of congenital myopathy and the latter of which is a form of inherited multiple congenital contractures.

REFERENCES

- Holtzer, M.E., Kidd, S.G., Crimmins, D.L. and Holtzer, A. 1992. $\beta\beta$ homodimers exist in native rabbit skeletal muscle Tropomyosin and increase after denaturation-renaturation. *Protein Sci.* 1: 335-341.
- Hunt, C.C., Eyre, H.J., Akkari, P.A., Meredith, C., Dorosz, S.M., Wilton, S.D., Callen, D.F., Laing, N.G. and Baker, E. 1995. Assignment of the human β Tropomyosin gene (TPM2) to band 9p13 by fluorescence *in situ* hybridisation. *Cytogenet. Cell Genet.* 71: 94-95.
- Donner, K., Ollikainen, M., Ridanpää, M., Christen, H.J., Goebel, H.H., de Visser, M., Pelin, K. and Wallgren-Pettersson, C. 2002. Mutations in the β Tropomyosin (TPM2) gene—a rare cause of nemaline myopathy. *Neuromuscul. Disord.* 12: 151-158.
- Tajsharghi, H., Ohlsson, M., Lindberg, C. and Oldfors, A. 2007. Congenital myopathy with nemaline rods and cap structures caused by a mutation in the β Tropomyosin gene (TPM2). *Arch. Neurol.* 64: 1334-1338.
- Robinson, P., Lipscomb, S., Preston, L.C., Altin, E., Watkins, H., Ashley, C.C. and Redwood, C.S. 2007. Mutations in fast skeletal Troponin I, Troponin T, and β Tropomyosin that cause distal arthrogryposis all increase contractile function. *FASEB J.* 21: 896-905.
- Tajsharghi, H., Kimber, E., Holmgren, D., Tulinius, M. and Oldfors, A. 2007. Distal arthrogryposis and muscle weakness associated with a β Tropomyosin mutation. *Neurology* 68: 772-775.
- Nilsson, J. and Tajsharghi, H. 2008. β Tropomyosin mutations alter Tropomyosin isoform composition. *Eur. J. Neurol.* 15: 573-578.
- Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 190990. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Gurnett, C.A., Alaei, F., Desruisseau, D., Boehm, S. and Dobbs, M.B. 2009. Skeletal muscle contractile gene (TNNT3, MYH3, TPM2) mutations not found in vertical talus or clubfoot. *Clin. Orthop. Relat. Res.* 467: 1195-1200.

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.

CHROMOSOMAL LOCATION

Genetic locus: TPM2 (human) mapping to 9p13.3.

PRODUCT

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

APPLICATIONS

Tropomyosin β (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Tropomyosin β 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.

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.