



**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](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](http://linkedin.com/company/szaboscandic)



# SMTNL1 (h): 293T Lysate: sc-372366

## BACKGROUND

The cytoskeletal protein smoothelin is highly conserved among vertebrates and is expressed exclusively by contractile smooth muscle cells where it localizes to the filament network. Smoothelin associates with actin stress fibers but does not interact with desmin. SMTNL1 (smoothelin-like 1), also known as CHASM, is a 457 amino acid protein containing a CH (calponin-homology) domain. Belonging to the smoothelin family of smooth muscle-specific proteins, SMTNL1 may be involved in contractile activity. The gene encoding SMTNL1 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

## REFERENCES

1. Grossfeld, P.D., Mattina, T., Lai, Z., Favier, R., Jones, K.L., Cotter, F. and Jones, C. 2004. The 11q terminal deletion disorder: a prospective study of 110 cases. *Am. J. Med. Genet. A* 129: 51-61.
2. Kurita, R., Tabata, Y., Sagara, H., Arai, K. and Watanabe, S. 2004. A novel smoothelin-like, Actin-binding protein required for choroidal fissure closure in zebrafish. *Biochem. Biophys. Res. Commun.* 313: 1092-1100.
3. Taylor, T.D., Noguchi, H., Totoki, Y., Toyoda, A., Kuroki, Y., Dewar, K., Lloyd, C., Itoh, T., Takeda, T., Kim, D.W., She, X., Barlow, K.F., Bloom, T., Bruford, E., Chang, J.L., Cuomo, C.A., Eichler, E., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. *Nature* 440: 497-500.
4. Wooldridge, A.A., Fortner, C.N., Lontay, B., Akimoto, T., Neppi, R.L., Facemire, C., Datto, M.B., Kwon, A., McCook, E., Li, P., Wang, S., Thresher, R.J., Miller, S.E., Perriard, J.C., Gavin, T.P., Hickner, R.C., et al. 2008. Deletion of the protein kinase A/protein kinase G target SMTNL1 promotes an exercise-adapted phenotype in vascular smooth muscle. *J. Biol. Chem.* 283: 11850-11859.
5. Ishida, H., Borman, M.A., Ostrander, J., Vogel, H.J. and MacDonald, J.A. 2008. Solution structure of the calponin homology (CH) domain from the smoothelin-like 1 protein: a unique apocalmodulin-binding mode and the possible role of the C-terminal type-2 CH-domain in smooth muscle relaxation. *J. Biol. Chem.* 283: 20569-20578.
6. Haste, S.C., Dome, J.S., Babyn, P.S., Graf, N.M., Grundy, P., Godzinski, J., Levitt, G.A. and Jenkinson, H. 2008. Wilms tumour: prognostic factors, staging, therapy and late effects. *Pediatr. Radiol.* 38: 2-17.
7. Borman, M.A., Freed, T.A., Haystead, T.A. and Macdonald, J.A. 2009. The role of the calponin homology domain of smoothelin-like 1 (SMTNL1) in myosin phosphatase inhibition and smooth muscle contraction. *Mol. Cell. Biochem.* 327: 93-100.

## 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: SMTNL1 (human) mapping to 11q12.1.

## PRODUCT

SMTNL1 (h): 293T Lysate represents a lysate of human SMTNL1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

SMTNL1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive SMTNL1 antibodies. Recommended use: 10-20 µl per lane.

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

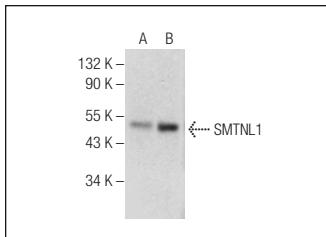
SMTNL1 (G-7): sc-390369 is recommended as a positive control antibody for Western Blot analysis of enhanced human SMTNL1 expression in SMTNL1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG<sub>x</sub> BP-HRP: sc-516102 or m-IgG<sub>x</sub> 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



SMTNL1 (G-7): sc-390369. Western blot analysis of SMTNL1 expression in non-transfected: sc-117752 (**A**) and human SMTNL1 transfected: sc-372366 (**B**) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.