

SMTNL1 (T-14): sc-162240

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 map to chromosome 11.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SMTNL1 (human) mapping to 11q12.1; Smtnl1 (mouse) mapping to 2 D.

SOURCE

SMTNL1 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SMTNL1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-162240 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SMTNL1 (T-14) is recommended for detection of SMTNL1 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with SMTNL2.

Suitable for use as control antibody for SMTNL1 siRNA (h): sc-97014, SMTNL1 siRNA (m): sc-153640, SMTNL1 shRNA Plasmid (h): sc-97014-SH, SMTNL1 shRNA Plasmid (m): sc-153640-SH, SMTNL1 shRNA (h) Lentiviral Particles: sc-97014-V and SMTNL1 shRNA (m) Lentiviral Particles: sc-153640-V.

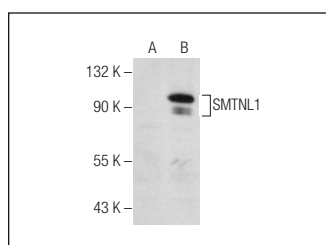
Molecular Weight of SMTNL1: 49 kDa.

Positive Controls: SMTNL1 (h): 293T Lysate: sc-372366.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



SMTNL1 (T-14): sc-162240. Western blot analysis of SMTNL1 expression in non-transfected: sc-117752 (A) and human SMTNL1 transfected: sc-372366 (B) 293T whole cell lysates.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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