

TMTSP (H-280): sc-68847

BACKGROUND

TMTSP (transmembrane molecule with Thrombospondin module), also known as THSD1 (Thrombospondin type-1 domain-containing protein 1), is an 852 amino acid protein expressed in endothelial cells and hematopoietic cells. Three isoforms of TMTSP are produced by alternative splicing events. Isoforms 1 and 2 are single-pass type I membrane proteins, while isoform 3 is a secreted protein. TMTSP contains three immunoglobulin-like domains and one Thrombospondin domain. Thrombospondin domains have been associated with cell migration and are found in a variety of different proteins, including extracellular matrix proteins, thrombospondins and complement pathway proteins.

REFERENCES

1. Bork, P. 1993. The modular architecture of a new family of growth regulators related to connective tissue growth factor. *FEBS Lett.* 327: 125-130.
2. Clark, H.F., et al. 2003. The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a bioinformatics assessment. *Genome Res.* 13: 2265-2270.
3. Gerhard, D.S., et al. 2004. The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). *Genome Res.* 14: 2121-2127.
4. Orr, A.W., et al. 2004. Thrombospondin induces RhoA inactivation through FAK-dependent signaling to stimulate focal adhesion disassembly. *J. Biol. Chem.* 279: 48983-48992.
5. Takayanagi, S., et al. 2006. Genetic marking of hematopoietic stem and endothelial cells: identification of the TMTSP gene encoding a novel cell surface protein with the Thrombospondin-1 domain. *Blood* 107: 4317-4325.
6. Kis, E., et al. 2006. Microarray analysis of radiation response genes in primary human fibroblasts. *Int. J. Radiat. Oncol. Biol. Phys.* 66: 1506-1514.
7. Gruber, H.E., et al. 2006. Immunolocalization of Thrombospondin in the human and sand rat intervertebral disc. *Spine* 31: 2556-2561.

CHROMOSOMAL LOCATION

Genetic locus: THSD1 (human) mapping to 13q14.3; Thsd1 (mouse) mapping to 8 A2.

SOURCE

TMTSP (H-280) is a rabbit polyclonal antibody raised against amino acids 65-344 mapping within an N-terminal extracellular domain of TMTSP 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.

STORAGE

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

APPLICATIONS

TMTSP (H-280) is recommended for detection of Thrombospondin type-1 domain-containing protein 1 precursor of human and, to a lesser extent, mouse and rat 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).

TMTSP (H-280) is also recommended for detection of Thrombospondin type-1 domain-containing protein 1 precursor in additional species, including canine.

Suitable for use as control antibody for TMTSP siRNA (h): sc-63139, TMTSP siRNA (m): sc-63140, TMTSP shRNA Plasmid (h): sc-63139-SH, TMTSP shRNA Plasmid (m): sc-63140-SH, TMTSP shRNA (h) Lentiviral Particles: sc-63139-V and TMTSP shRNA (m) Lentiviral Particles: sc-63140-V.

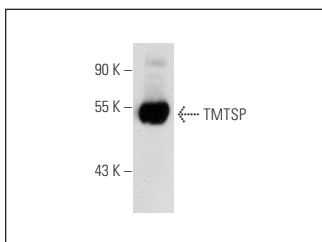
Molecular Weight of TMTSP: 95 kDa.

Positive Controls: TMTSP (h): 293T Lysate: sc-117305 or human platelet extract: sc-363773.

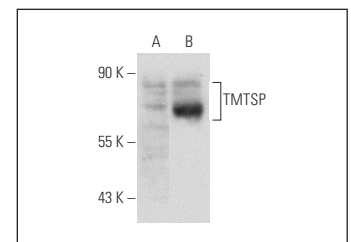
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TMTSP (H-280): sc-68847. Western blot analysis of TMTSP expression in human platelet extract.



TMTSP (H-280): sc-68847. Western blot analysis of TMTSP expression in non-transfected: sc-117752 (A) and human TMTSP transfected: sc-117305 (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 or our catalog for detailed protocols and support products.