SANTA CRUZ BIOTECHNOLOGY, INC.

TMTSP (H-11): sc-376994

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The Power to Question

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, thromobospondins 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.

CHROMOSOMAL LOCATION

Genetic locus: THSD1 (human) mapping to 13q14.3.

SOURCE

TMTSP (H-11) is a mouse monoclonal 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_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TMTSP (H-11) is available conjugated to agarose (sc-376994 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376994 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376994 PE), fluorescein (sc-376994 FITC), Alexa Fluor® 488 (sc-376994 AF488), Alexa Fluor® 546 (sc-376994 AF546), Alexa Fluor® 594 (sc-376994 AF594) or Alexa Fluor® 647 (sc-376994 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376994 AF680) or Alexa Fluor® 790 (sc-376994 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TMTSP (H-11) is recommended for detection of Thrombospondin type-1 domain-containing protein 1 precursor of human origin by Western Blotting (starting dilution 1:100, 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, immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

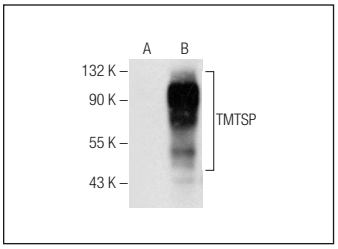
Molecular Weight of TMTSP: 95 kDa.

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

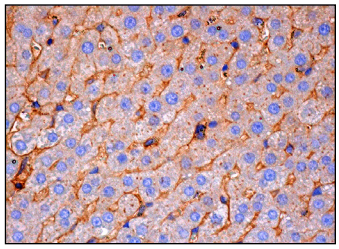
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



TMTSP (H-11): sc-376994. Western blot analysis of TMTSP expression in non-transfected: sc-117752 (**A**) and human TMTSP transfected: sc-117305 (**B**) 293T whole cell lysates.



TMTSP (H-11): sc-376994. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing membrane staining of hepatocytes.

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.