

TM (C-17): sc-7096

BACKGROUND

Thrombomodulin (TM, also called CD141) is a type I membrane receptor that is specific to endothelial cells. TM has a cysteine-rich extracellular domain with six EGF-like regions. TM forms a complex with thrombin, which activates protein C to generate activated protein C (APC), an anticoagulant enzyme. APC together with protein S inhibits coagulation by inactivating factors Va and VIIIa. Deletion of the TM gene results in embryonic lethality in mice.

REFERENCES

1. Jackman, R.W., et al. 1987. Human thrombomodulin gene is intron depleted: nucleic acid sequences of the cDNA and gene predict protein structure and suggest sites of regulatory control. *Proc. Natl. Acad. Sci. USA* 84: 6425-6429.
2. Suzuki, K., et al. 1987. Structure and expression of human thrombomodulin, a thrombin receptor on endothelium acting as a cofactor for protein C activation. *EMBO J.* 6: 1891-1897.
3. Shirai, T., et al. 1988. Gene structure of human thrombomodulin, a cofactor for thrombin-catalyzed activation of protein C. *J. Biochem.* 103: 281-285.
4. Healy, A.M., et al. 1995. Absence of the blood-clotting regulator thrombomodulin causes embryonic lethality in mice before development of a functional cardiovascular system. *Proc. Natl. Acad. Sci. USA* 92: 850-854.
5. Rosenberg, R.D. 1995. The absence of the blood clotting regulator thrombomodulin causes embryonic lethality in mice before development of a functional cardiovascular system. *Thromb. Haemost.* 74: 52-57.

CHROMOSOMAL LOCATION

Genetic locus: THBD (human) mapping to 20p11.2; Thbd (mouse) mapping to 2 G3.

SOURCE

TM (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of TM 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-7096 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

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

APPLICATIONS

TM (C-17) is recommended for detection of thrombomodulin of mouse 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).

Suitable for use as control antibody for TM siRNA (h): sc-36686, TM siRNA (m): sc-36687, TM shRNA Plasmid (h): sc-36686-SH, TM shRNA Plasmid (m): sc-36687-SH, TM shRNA (h) Lentiviral Particles: sc-36686-V and TM shRNA (m) Lentiviral Particles: sc-36687-V.

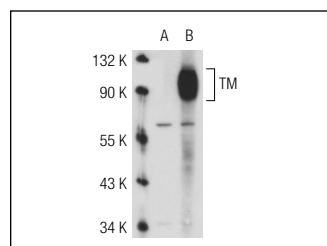
Molecular Weight of TM: 105 kDa.

Positive Controls: A549 cell lysate: sc-2413, AML-193 whole cell lysate or human tonsil tissue extract: sc-364263.

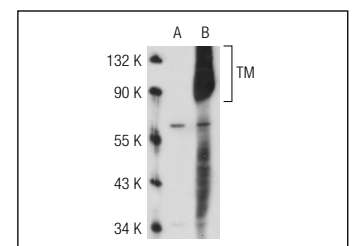
RECOMMENDED SECONDARY REAGENTS

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



TM (C-17): sc-7096. Western blot analysis of TM expression in non-transfected: sc-117752 (A) and human TM transfected: sc-115666 (B) 293T whole cell lysates.



TM (C-17): sc-7096. Western blot analysis of TM expression in non-transfected: sc-117752 (A) and mouse TM transfected: sc-127663 (B) 293T whole cell lysates.

RESEARCH USE

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



Try **TM (D-3): sc-13164** or **TM (H-11): sc-271804**, our highly recommended monoclonal alternatives to TM (C-17). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **TM (D-3): sc-13164**.