

TM (H-300): sc-9162

BACKGROUND

Thrombomodulin[™], 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. It 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.

CHROMOSOMAL LOCATION

Genetic locus: THBD (human) mapping to 20p11.21; Thbd (mouse) mapping to 2 G3.

SOURCE

TM (H-300) is a rabbit polyclonal antibody raised against amino acids 22-321 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.

Available as fluorescein conjugate for immunofluorescence, sc-9162 FITC, 200 µg/1 ml.

APPLICATIONS

TM (H-300) is recommended for detection of thrombomodulin 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), 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 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: TM (h): 293T Lysate: sc-115666, CCRF-CEM cell lysate: sc-2225 or A549 cell lysate: sc-2413.

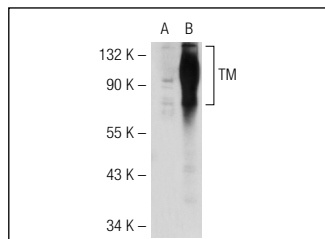
RECOMMENDED SECONDARY REAGENTS

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) 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. 3) Immunohistochemistry: use ImmunoCruz[™]: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

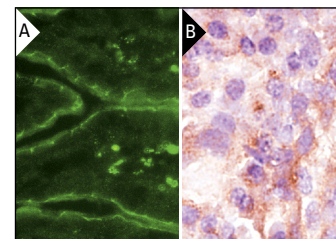
STORAGE

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

DATA



TM (H-300): sc-9162. Western blot analysis of TM expression in non-transfected: sc-117752 (A) and human TM transfected: sc-115666 (B) 293T whole cell lysates.



TM (H-300): sc-9162. Immunofluorescence staining of normal mouse intestine frozen section (A) and immunoperoxidase staining of formalin-fixed, paraffin-embedded human tonsil tissue (B) showing membrane staining.

SELECT PRODUCT CITATIONS

1. Tabuchi, N., et al. 2004. Non-viral *in vivo* thrombomodulin gene transfer prevents early loss of thromboresistance of grafted veins. *Eur. J. Cardiothorac Surg.* 26: 995-1001.
2. Tsuchioka, T., et al. 2006. Effects of glutamic acid and taurine on total parenteral nutrition. *J. Pediatr. Surg.* 41: 1566-1572.
3. Zella, L.A., et al. 2008. Vitamin D-binding protein influences total circulating levels of 1,25-dihydroxyvitamin D3 but does not directly modulate the bioactive levels of the hormone *in vivo*. *Endocrinology* 149: 3656-3667.
4. Shi, C.S., et al. 2008. Lectin-like domain of thrombomodulin binds to its specific ligand Lewis Y antigen and neutralizes lipopolysaccharide-induced inflammatory response. *Blood* 112: 3661-3670.
5. Lin, S.J., et al. 2009. Atorvastatin induces thrombomodulin expression in the aorta of cholesterol-fed rabbits and in TNF α -treated human aortic endothelial cells. *Histol. Histopathol.* 24: 1147-1159.
6. Liu, P.L., et al. 2010. Decreased expression of thrombomodulin is correlated with tumor cell invasiveness and poor prognosis in nonsmall cell lung cancer. *Mol. Carcinog.* 9: 874-881.

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 (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **TM (D-3): sc-13164**.