

BACKGROUND

Hemostasis following tissue injury involves the deployment of essential plasma procoagulants (Prothrombin and Factors X, IX, V and VIII), which are involved in a blood coagulation cascade leading to the formation of insoluble fibrin clots and the promotion of platelet aggregation. Coagulation Factor V (Factor V, FV, proaccelerin, labile factor) is a 2,196 amino acid, single chain glycoprotein that is cleaved by Thrombin to yield an active, Ca²⁺-dependent dimer that is essential to the blood coagulation cascade. Together with catalytic Factor Xa and Ca²⁺ on the surface of platelets or endothelial cells, Factor Va coordinates into a prothrombinase complex, which mediates proteolysis of Prothrombin into active Thrombin. Tissue factor (TF), also designated coagulation Factor III) is a cell surface glycoprotein that enables cells to initiate blood coagulation cascades. It functions as a high-affinity receptor for coagulation Factor VII.

CHROMOSOMAL LOCATION

Genetic locus: F3 (human) mapping to 1p21.3; F3 (mouse) mapping to 3 G1.

SOURCE

TF (H-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 125-163 within an internal region of TF of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TF (H-9) is available conjugated to agarose (sc-374441 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374441 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374441 PE), fluorescein (sc-374441 FITC), Alexa Fluor® 488 (sc-374441 AF488), Alexa Fluor® 546 (sc-374441 AF546), Alexa Fluor® 594 (sc-374441 AF594) or Alexa Fluor® 647 (sc-374441 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374441 AF680) or Alexa Fluor® 790 (sc-374441 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374441 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

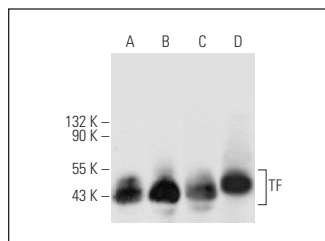
TF (H-9) is recommended for detection of TF of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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 TF siRNA (h): sc-44984, TF siRNA (m): sc-40415, TF shRNA Plasmid (h): sc-44984-SH, TF shRNA Plasmid (m): sc-40415-SH, TF shRNA (h) Lentiviral Particles: sc-44984-V and TF shRNA (m) Lentiviral Particles: sc-40415-V.

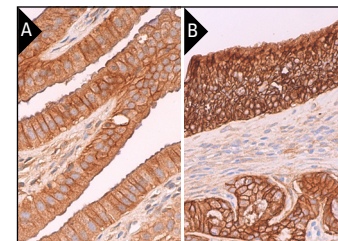
Molecular Weight of TF: 47 kDa.

STORAGE

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

DATA

TF (H-9): sc-374441. Western blot analysis of TF expression in JEG-3 (A), WI-38 (B) and A-431 (C) whole cell lysates and human kidney tissue extract (D).



TF (H-9): sc-374441. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing membrane and cytoplasmic staining of glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing membrane and cytoplasmic staining of respiratory epithelial cells and glandular cells (B).

SELECT PRODUCT CITATIONS

- Zarà, M., et al. 2018. Molecular mechanisms of platelet activation and aggregation induced by breast cancer cells. *Cell. Signal.* 48: 45-53.
- Sato, N., et al. 2019. The pathological challenge of establishing a precise diagnosis for pulmonary tumour thrombotic microangiopathy: identification of new diagnostic criteria. *Histopathology* 74: 892-901.
- Okada, S., et al. 2020. Trousseau's syndrome associated with pulmonary pleomorphic carcinoma exhibiting aggressive features: a case report. *Mol. Clin. Oncol.* 12: 36-40.
- Morsy, M.D. 2020. Hemostatic effect of acylated ghrelin in control and sleeve gastrectomy-induced rats: mechanisms of action. *Arch. Physiol. Biochem.* 126: 31-40.
- Tang, P., et al. 2020. *Spatholobi Caulis* dispensing granule reduces deep vein thrombus burden through antiinflammation via SIRT1 and Nrf2. *Phytomedicine* 77: 153285.
- Liu, Z., et al. 2020. Fostered Nrf2 expression antagonizes iron overload and glutathione depletion to promote resistance of neuron-like cells to ferroptosis. *Toxicol. Appl. Pharmacol.* 407: 115241.
- Aboyoussef, A.M., et al. 2021. Enoxaparin prevents CXCL16/ADAM10-mediated cisplatin renal toxicity: role of the coagulation system and the transcriptional factor NFκB. *Life Sci.* 270: 119120.
- Yamashita, A., et al. 2021. Pathological features of ruptured coronary plaque and thrombus interfaces: fibrin and von Willebrand factor as platelet scaffolds on rupture sites. *Thromb. Haemost.* 121: 234-241.

RESEARCH USE

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

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA