

TFPI-2 (B-7): sc-48380

BACKGROUND

The extrinsic pathway of blood coagulation is initiated by contact of plasma factor VII with tissue factor, a cellular membrane glycoprotein that normally is segregated from the bloodstream but can be exposed after tissue injury or newly synthesized in endothelial cells or leukocytes after stimulation by endotoxin and cytokines. Inhibition of factor VIIa tissue factor activity requires a plasma component (tissue factor pathway inhibitor (TFPI), lipoprotein-associated coagulation inhibitor (LACI) or extrinsic pathway inhibitor (EPI)) and factor Xa. TFPI directly inhibits factor Xa, and, in an Xa-dependent fashion, also inhibits the factor VIIa tissue factor catalytic complex. TFPI is a multivalent, Kunitz-type proteinase inhibitor that circulates in association with plasma lipoproteins VLDL, LDL, and HDL. TFPI-2 (also known as placental protein 5) is a related glycoprotein that was originally isolated from human placenta.

CHROMOSOMAL LOCATION

Genetic locus: TFPI2 (human) mapping to 7q21.3.

SOURCE

TFPI-2 (B-7) is a mouse monoclonal antibody raised against amino acids 71-190 of TFPI-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TFPI-2 (B-7) is available conjugated to agarose (sc-48380 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-48380 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-48380 PE), fluorescein (sc-48380 FITC), Alexa Fluor® 488 (sc-48380 AF488), Alexa Fluor® 546 (sc-48380 AF546), Alexa Fluor® 594 (sc-48380 AF594) or Alexa Fluor® 647 (sc-48380 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-48380 AF680) or Alexa Fluor® 790 (sc-48380 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

TFPI-2 (B-7) is recommended for detection of TFPI-2 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 TFPI-2 siRNA (h): sc-41062, TFPI-2 shRNA Plasmid (h): sc-41062-SH and TFPI-2 shRNA (h) Lentiviral Particles: sc-41062-V.

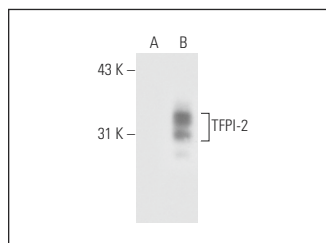
Molecular Weight of TFPI-2: 32 kDa.

Positive Controls: TFPI-2 (h): 293T Lysate: sc-176427, U-87 MG cell lysate: sc-2411 or human placenta extract: sc-363772.

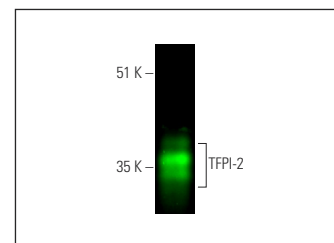
RECOMMENDED SUPPORT REAGENTS

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



TFPI-2 (B-7): sc-48380. Western blot analysis of TFPI-2 expression in non-transfected: sc-117752 (A) and human TFPI-2 transfected: sc-176427 (B) 293T whole cell lysates.



TFPI-2 (B-7): sc-48380. Near-infrared western blot analysis of TFPI-2 expression in human placenta tissue extract. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

SELECT PRODUCT CITATIONS

- Zerrouqi, A., et al. 2014. P14ARF suppresses tumor-induced thrombosis by regulating the tissue factor pathway. *Cancer Res.* 74: 1371-1378.
- Mitsui, E., et al. 2019. Identification of ryuidine as a KDM5A inhibitor. *Sci. Rep.* 9: 9952.
- Yamamoto, Y., et al. 2020. Higher methylation subtype of malignant melanoma and its correlation with thicker progression and worse prognosis. *Cancer Med.* 9: 7194-7204.
- Ota, Y., et al. 2021. Tissue factor pathway inhibitor-2 is specifically expressed in ovarian clear cell carcinoma tissues in the nucleus, cytoplasm and extracellular matrix. *Oncol. Rep.* 45: 1023-1032.
- Guan, G., et al. 2022. TFPI2 suppresses the interaction of TGF-β2 pathway regulators to promote endothelial-mesenchymal transition in diabetic nephropathy. *J. Biol. Chem.* 298: 101725.
- Kubota, Y., et al. 2022. Qualitative differences in disease-associated MEK mutants reveal molecular signatures and aberrant signaling-crosstalk in cancer. *Nat. Commun.* 13: 4063.

STORAGE

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

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