

TFPI-2 (C-20): sc-18719

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.

REFERENCES

1. Broze, G.J., Jr. and Miletich, J.P. 1987. Characterization of the inhibition of tissue factor in serum. *Blood* 69: 150-155.
2. Rao, L.V., et al. 1987. Studies of a mechanism inhibiting the initiation of the extrinsic pathway of coagulation. *Blood* 69: 645-651.
3. Davie, E.W., et al. 1991. The coagulation cascade: initiation, maintenance, and regulation. *Biochemistry* 30: 10363-10370.
4. Girard, T.J., et al. 1991. Structure of the human lipoprotein-associated coagulation inhibitor gene. Intro/exon gene organization and localization of the gene to chromosome 2. *J. Biol. Chem.* 266: 5036-5041.
5. Enyoji, K., et al. 1993. Human tissue factor pathway inhibitor (TFPI) gene: complete genomic structure and localization on the genetic map of chromosome 2q. *Genomics* 17: 423-428.
6. Kisiel, W., et al. 1994. Evidence that a second human tissue factor pathway inhibitor (TFPI-2) and human placental protein 5 are equivalent. *Blood* 84: 4384-4385.

CHROMOSOMAL LOCATION

Genetic locus: TFPI2 (human) mapping to 7q21.3; Tfp2 (mouse) mapping to 6 A1.

SOURCE

TFPI-2 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TFPI-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS containing 0.1% sodium azide and 0.2% gelatin.

Blocking peptide available for competition studies, sc-18719 P, (100 µg peptide in 0.5 ml PBS containing 0.1% sodium azide and 100 µg BSA).

STORAGE

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

APPLICATIONS

TFPI-2 (C-20) is recommended for detection of TFPI-2 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).

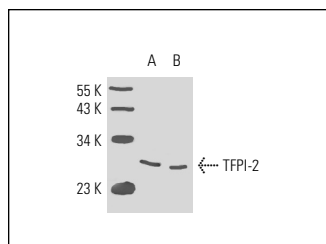
TFPI-2 (C-20) is also recommended for detection of TFPI-2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TFPI-2 siRNA (h): sc-41062, TFPI-2 siRNA (m): sc-41063, TFPI-2 shRNA Plasmid (h): sc-41062-SH, TFPI-2 shRNA Plasmid (m): sc-41063-SH, TFPI-2 shRNA (h) Lentiviral Particles: sc-41062-V and TFPI-2 shRNA (m) Lentiviral Particles: sc-41063-V.

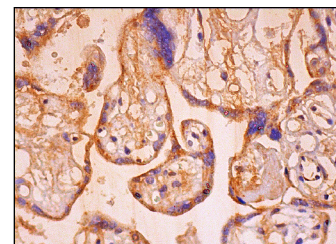
Molecular Weight of TFPI-2: 32 kDa.

Positive Controls: JAR cell lysate: sc-2276, U-87 MG cell lysate: sc-2411 or EG-3 whole cell lysate.

DATA



TFPI-2 (C-20): sc-18719. Western blot analysis of TFPI-2 expression in EG-3 (A) and JAR (B) whole cell lysates.



TFPI-2 (C-20): sc-18719. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells and extracellular staining of connective tissue.

SELECT PRODUCT CITATIONS

1. Naumnik, B., et al. 2006. Tissue factor and its inhibitor in human non-crescentic glomerulonephritis—immunostaining vs plasma and urinary levels. *Nephrol. Dial. Transplant.* 21: 3450-3457.

RESEARCH USE

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

PROTOCOLS

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



Try **TFPI-2 (B-7): sc-48380** or **TFPI-2 (C-3): sc-48369**, our highly recommended monoclonal alternatives to TFPI-2 (C-20).