

TFPI (C-20): sc-18713

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.

CHROMOSOMAL LOCATION

Genetic locus: TFPI (human) mapping to 2q32.1.

SOURCE

TFPI (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TFPI 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-18713 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.

RESEARCH USE

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

APPLICATIONS

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

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

Suitable for use as control antibody for TFPI siRNA (h): sc-41060, TFPI shRNA Plasmid (h): sc-41060-SH and TFPI shRNA (h) Lentiviral Particles: sc-41060-V.

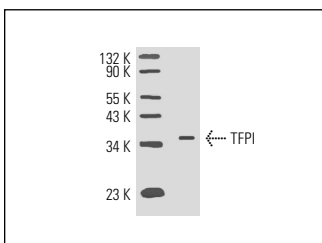
Molecular Weight of TFPI: 40 kDa.

Positive Controls: JAR cell lysate: sc-2276, Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

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



TFPI (C-20): sc-18713. Western blot analysis of TFPI expression in JAR whole cell lysate.

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.

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Try **TFPI (G-5): sc-365920** or **TFPI (G-6): sc-131319**, our highly recommended monoclonal alternatives to TFPI (C-20).