SANTA CRUZ BIOTECHNOLOGY, INC.

TFPI-2 (h): 293T Lysate: sc-176427

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. and Rapaport, S.I. 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. Enjyoji, 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.
7. Miyagi, Y., et al. 1996. Assignment of the human PP5/TFPI-2 gene to 7q22 by FISH and PCR-based human/rodent cell hybrid mapping panel analysis. Genomics 35: 267-268.

CHROMOSOMAL LOCATION

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

PRODUCT

TFPI-2 (h): 293T Lysate represents a lysate of human TFPI-2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

TFPI-2 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive TFPI-2 antibodies. Recommended use: 10-20 µl per lane.

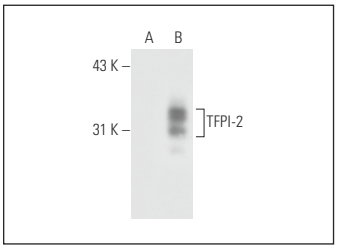
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TFPI-2 (B-7): sc-48380 is recommended as a positive control antibody for Western Blot analysis of enhanced human TFPI-2 expression in TFPI-2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

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.

RESEARCH USE

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