TAFI (C-20): sc-67868



The Power to Question

BACKGROUND

The Thrombin-activatable fibrinolysis inhibitor (TAFI), also designated procarboxypeptidase B2 or procarboxypeptidase U, is a hepatically secreted zymogen that downregulates fibrinolysis when activated by Thrombin. It is synthesized in the liver and circulates in plasma in its proenzyme form. When activated, TAFI removes C-terminal arginine or lysine residues from biologically active peptides such as kinins or anaphylatoxins. TAFI cleaves the lysine residues from Fibrin, which prevents plasminogen from activation into plasmin and retards the lysis of a Fibrin clot. Elevated concentration of TAFI in blood is considered a risk factor for venous thrombosis, whereas a deficiency might contribute to the severity of bleeding disorders in hemophilias A and B. Decreased levels of TAFI are found in chronic liver disease.

REFERENCES

- Von dem Borne, P.A., Bajzar, L., Meijers, J.C., Nesheim, M.E. and Bouma, B.N. 1997. Thrombin-mediated activation of Factor XI results in a Thrombinactivatable fibrinolysis inhibitor-dependent inhibition of fibrinolysis. J. Clin. Invest. 99: 2323-2327.
- Zhao, L., Morser, J., Bajzar, L., Nesheim, M. and Nagashima, M. 1999. Identification and characterization of two Thrombin-activatable fibrinolysis inhibitor isoforms. Thromb. Haemost. 80: 949-955.
- Hall, S.W., Nagashima, M., Zhao, L., Morser, J. and Leung, L.L. 1999. Thrombin interacts with thrombomodulin, Protein C and Thrombin-activatable fibrinolysis inhibitor via specific and distinct domains. J. Biol. Chem. 274: 25510-25516.
- Juhan-Vague, I., Renucci, J.F., Grimaux, M., Morange, P.E., Gouvernet, J., Gourmelin, Y. and Alessi, MC. 2000. Thrombin-activatable fibrinolysis inhibitor antigen levels and cardiovascular risk factors. Arterioscler. Thromb. Vasc. Biol. 20: 2156-2161.
- 5. Bajzar, L. 2000. Thrombin-activatable fibrinolysis inhibitor and an anti-fibrinolytic pathway. Arterioscler. Thromb. Vasc. Biol. 20: 2511-2518.
- van Tilburg, N.H., Rosendaal, F.R. and Bertina, R.M. 2000. Thrombin-activatable fibrinolysis inhibitor and the risk for deep vein thrombosis. Blood 95: 2855-2859.
- 7. Silveira, A., Schatteman, K., Goossens, F., Moor, E., Scharpe, S., Stromqvist, M., Hendriks, D. and Hamsten, A. 2001. Plasma procarboxypeptidase U in men with symptomatic coronary artery disease. Thromb. Haemost. 84: 364-368.
- 8. Schroeder, V., Chatterjee, T., Mehta, H., Windecker, S., Pham, T., Devantay, N., Meier, B. and Kohler, H.P. 2003. Thrombin-activatable fibrinolysis inhibitor (TAFI) levels in patients with coronary artery disease investigated by angiography. Thromb. Haemost. 88: 1020-1025.

CHROMOSOMAL LOCATION

Genetic locus: CPB2 (human) mapping to 13q14.13; Cpb2 (mouse) mapping to 14 D3.

RESEARCH USE

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

SOURCE

TAFI (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TAFI 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-67868 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TAFI (C-20) is recommended for detection of Thrombin-activable fibrinolysis inhibitor of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

TAFI (C-20) is also recommended for detection of Thrombin-activable fibrinolysis inhibitor in additional species, including equine and canine.

Suitable for use as control antibody for TAFI siRNA (h): sc-63098, TAFI siRNA (m): sc-63099, TAFI shRNA Plasmid (h): sc-63098-SH, TAFI shRNA Plasmid (m): sc-63099-SH, TAFI shRNA (h) Lentiviral Particles: sc-63098-V and TAFI shRNA (m) Lentiviral Particles: sc-63099-V.

Molecular Weight of TAFI: 48-58 kDa.

Positive Controls: human plasma extract: sc-364374 or human platelet extract: sc-363773.

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) 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.

STORAGE

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



Try **TAFI (13H4):** sc-59708, our highly recommended monoclonal alternative to TAFI (C-20).

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**