SANTA CRUZ BIOTECHNOLOGY, INC.

TF (2K1): sc-59714



BACKGROUND

Hemostasis following tissue injury involves the deployment of essential plasma procoagulants (Prothrombin and Factors X, IX, V and VIII), which are involved in a blood coagulation cascade leading to the formation of insoluble Fibrin clots and the promotion of platelet aggregation. Coagulation Factor V (Factor V, FV, proaccelerin, labile factor) is a 2196 amino acid, single chain glycoprotein that is cleaved by Thrombin to yield an active, Ca²⁺-dependent dimer that is essential to the blood coagulation cascade. Together with catalytic Factor Xa and Ca²⁺ on the surface of platelets or endothelial cells, Factor Va coordinates into a Prothrombin. Tissue factor (TF), also designated coagulation Factor III) is a cell surface glycoprotein that enables cells to initiate blood coagulation cascades. It functions as a high-affinity receptor for coagulation Factor VII.

REFERENCES

- Davie, E.W., et al. 1975. Basic mechanisms in blood coagulation. Annu. Rev. Biochem. 44: 799-829.
- Kane, W.H., et al. 1986. Cloning of a cDNA coding for human Factor V, a blood coagulation factor homologous to Factor VIII and ceruloplasmin. Proc. Natl. Acad. Sci. USA 83: 6800-6804.
- Jenny, R.J., et al. 1987. Complete cDNA and derived amino acid sequence of human Factor V. Proc. Natl. Acad. Sci. USA 84: 4846-4850.
- Davie, E.W., et al. 1991. The coagulation cascade: initiation, maintenance and regulation. Biochemistry 30: 10363-10370.
- 5. Rand, M.D., et al. 1994. Platelet coagulation Factor Va: the major secretory platelet phosphoprotein. Blood 83: 2180-2190.
- 6. Macedo-Ribeiro, S., et al. 1999. Crystal structures of the membrane-binding C2 domain of human coagulation Factor V. Nature 402: 434-439.
- 7. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 227400. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 8. LocusLink Report (LocusID: 2152). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: F3 (human) mapping to 1p21.3.

SOURCE

TF (2K1) is a mouse monoclonal antibody raised against purified TF of human origin.

PRODUCT

Each vial contains 100 $\mu g~lgG_1$ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

TF (2K1) is recommended for detection of TF of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immuno-fluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1 x 10⁶ cells).

Suitable for use as control antibody for TF siRNA (h): sc-44984, TF shRNA Plasmid (h): sc-44984-SH and TF shRNA (h) Lentiviral Particles: sc-44984-V.

Molecular Weight of TF: 47 kDa.

Positive Controls: JEG-3 whole cell lysate: sc-364255.

DATA



expression in JEG-3 whole cell lysate.

SELECT PRODUCT CITATIONS

- Chen, K.D., et al. 2014. Interconnections between autophagy and the coagulation cascade in hepatocellular carcinoma. Cell Death Dis. 5: e1244.
- Huang, K.T., et al. 2017. Factor VII-induced microRNA-135a inhibits autophagy and is associated with poor prognosis in hepatocellular carcinoma. Mol. Ther. Nucleic Acids 9: 274-283.

RESEARCH USE

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

PROTOCOLS

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