Revision 3

Store at -20C

#97438

Tissue Factor/CD142 (E9M6T) XP® Rabbit mAb

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IHC-Bond, IHC-P	H	Endogenous	45-53	Rabbit IgG	#P13726	2152

Product Usage Information

Application	Dilution
Western Blotting	1:1000
IHC Leica Bond	1:200
Immunohistochemistry (Paraffin)	1:200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #89527.

Specificity/Sensitivity

Tissue Factor/CD142 (E9M6T) XP® Rabbit mAb recognizes endogenous levels of total Tissue Factor/CD142 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu123 of human Tissue Factor/CD142 protein.

Background

Tissue Factor (TF)/CD142 (Coagulation factor III/Thromboplastin) is a type-I transmembrane glycoprotein that serves as the cell surface receptor and cofactor for blood coagulation factors VII and VIIa, and thus plays a central role in hemostasis and thrombosis (1). The TF:VIIa receptor-ligand complex is widely recognized as the initiator of the extrinsic blood coagulation protease cascade, which ultimately leads to the generation of fibrin and thrombin (1). A member of the type-II cytokine receptor superfamily, TF has also been shown to engage the PI3K (2) and MAPK (3) signaling cascades upon binding to factor VIIa in order to drive cellular responses such as cell migration, growth, and proliferation. Although the function of TF under physiologic conditions is to coordinate blood clotting in response to tissue damage, TF is implicated in pathologic conditions such as tumorigenesis. Indeed, TF is aberrantly expressed in colorectal cancer, breast cancer, pancreatic cancer, and glioblastoma multiforme (4). It has been shown to promote tumor angiogenesis, tumor growth, metastasis, and venous thrombosis (5). Given that TF overexpression is associated with numerous types of solid tumors, it has garnered much attention as a potential therapeutic target.

Background References

1. Nemerson, Y. (1988) *Blood* 71, 1-8.
2. Versteeg, H.H. et al. (2000) *J Biol Chem* 275, 28750-6.
3. Poulsen, L.K. et al. (1998) *J Biol Chem* 273, 6228-32.
4. Callander, N.S. et al. (1992) *Cancer* 70, 1194-201.
5. Eisenreich, A. et al. (2016) *Clin Chem* 62, 563-70.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IHC-Bond:** IHC Leica Bond **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human

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Limited Uses

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