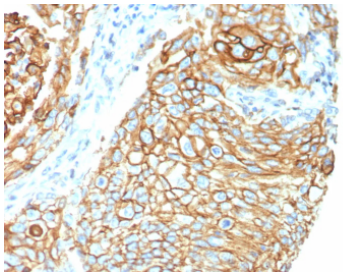
Tissue Factor Antibody / Coagulation and Tumor Signaling Marker [clone CD142/9195] (V5690)

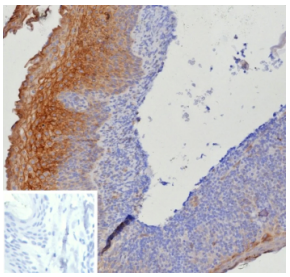
Catalog No.	Formulation	Size
V5690-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5690-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5690SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

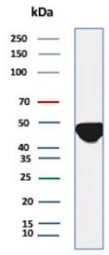
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	CD142/9195
Purity	Protein G affinity
UniProt	P13726
Localization	Secreted, membrane
Applications	Immunohistochemistry (FFPE): 1-2ug/ml Western blot: 2-4ug/ml
Limitations	This Tissue Factor Antibody / Coagulation and Tumor Signaling Marker is available for research use only.



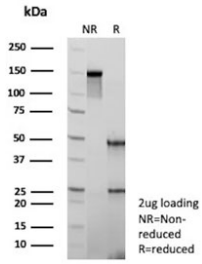
Tissue Factor Antibody Lung Carcinoma IHC. Immunohistochemistry analysis of FFPE human lung carcinoma tissue using Tissue Factor antibody clone CD142/9195. Tumor epithelial cells demonstrate strong membranous and cytoplasmic HRP-DAB brown staining consistent with the surface-associated localization of Tissue Factor / F3 / CD142 in coagulation pathway activation, inflammatory signaling, angiogenic regulation, and tumor-associated procoagulant activity within pulmonary carcinoma tissue. Nuclei are counterstained blue. Heat-induced epitope retrieval was performed by boiling tissue sections in pH9 10 mM Tris with 1 mM EDTA for 20 minutes followed by cooling prior to staining.



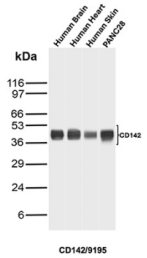
Tissue Factor Antibody Tonsil IHC. Immunohistochemistry analysis of FFPE human tonsil tissue using Tissue Factor antibody clone CD142/9195. Surface epithelial cells demonstrate strong membranous HRP-DAB brown staining consistent with the surface-associated localization of Tissue Factor / F3 / CD142 in inflammatory signaling, coagulation pathway activation, and epithelial immune-response regulation within lymphoid-associated tissue. Adjacent lymphoid regions show comparatively lower staining intensity. Nuclei are counterstained blue. Inset image shows a PBS-only negative control processed without primary antibody, confirming minimal background staining. Heat-induced epitope retrieval was performed by boiling tissue sections in pH9 10 mM Tris with 1 mM EDTA for 20 minutes followed by cooling prior to staining.



Tissue Factor Antibody WB. Western blot testing of human A431 cell lysate with Tissue Factor antibody (clone CD142/9195). Expected molecular weight: 33-50 kDa depending on glycosylation level.



SDS-PAGE analysis of purified, BSA-free Tissue Factor antibody (clone CD142/9195) as confirmation of integrity and purity.



Tissue Factor Antibody Multi-Tissue WB. Western blot analysis of human brain, human heart, human skin, and PANC28 lysates using Tissue Factor antibody clone CD142/9195. A prominent band is detected near 40-45 kDa, consistent with the expected molecular weight range of Tissue Factor / F3 / CD142. The observed expression pattern supports the membrane-associated role of Tissue Factor in coagulation pathway activation, vascular injury signaling, inflammatory response regulation, and tumor-associated procoagulant activity across normal and malignant human tissue samples.

Description

Tissue Factor antibody recognizes Tissue Factor, also known as Coagulation factor III (F3) and CD142, a membrane-associated glycoprotein that functions as the principal initiator of the extrinsic coagulation cascade. Tissue Factor antibody, also referred to as F3 antibody and thromboplastin antibody in the literature, is widely used in studies of hemostasis, inflammatory signaling, vascular biology, and tumor progression due to the central role of Tissue Factor in coagulation pathway activation and cellular stress-response signaling. Tissue Factor is predominantly localized at the plasma membrane where it binds coagulation factor VII and factor VIIa to initiate thrombin generation and fibrin clot formation.

Tissue Factor is encoded by the F3 gene located on chromosome 1p21.3 and belongs to the class II cytokine receptor family. The protein contains an extracellular ligand-binding domain, a transmembrane region, and a short cytoplasmic tail involved in intracellular signaling regulation. In addition to its role in coagulation, Tissue Factor participates in inflammatory signaling, angiogenesis, wound healing, endothelial activation, and regulation of tumor-associated microenvironment pathways. Tissue Factor signaling can activate MAPK, PI3K-AKT, and PAR-dependent pathways that contribute to proliferation, migration, and cellular survival responses.

The Tissue Factor Antibody / Coagulation and Tumor Signaling Marker format is especially relevant for cancer biology and vascular pathology research. Tissue Factor expression is elevated in numerous malignancies including lung cancer, pancreatic cancer, colorectal cancer, glioblastoma, ovarian cancer, and breast cancer, where increased expression is frequently associated with tumor aggressiveness, angiogenesis, metastatic potential, and cancer-associated thrombosis. Tumor-associated Tissue Factor activity contributes to procoagulant states commonly observed in advanced malignancy and may promote stromal remodeling and inflammatory recruitment within tumor microenvironments.

Tissue Factor expression is also inducible in monocytes, endothelial cells, epithelial cells, and stromal populations following inflammatory stimulation, hypoxia, or vascular injury. Cytokines including TNF-alpha and IL1 beta can strongly upregulate Tissue Factor expression during inflammatory activation, linking coagulation signaling with innate immune responses and endothelial dysfunction. Because of this intersection between coagulation and inflammation, Tissue Factor has become an important biomarker in studies of thrombosis, sepsis, atherosclerosis, and inflammatory vascular disease.

The glycosylated nature of Tissue Factor can contribute to variable electrophoretic migration during western blot analysis, with apparent molecular weights commonly observed above the predicted unglycosylated size. Membranous and cytoplasmic staining patterns are commonly observed in epithelial and tumor tissue, reflecting surface localization and intracellular trafficking of the receptor.

Clone CD142/9195 is useful for investigating Tissue Factor expression in normal and malignant tissue, coagulation-associated signaling pathways, inflammatory microenvironment studies, and tumor progression research. This antibody supports applications examining vascular injury responses, epithelial tumor biology, and procoagulant signaling mechanisms associated with aggressive carcinoma phenotypes.

Explore additional tumor-associated signaling and inflammatory pathway targets in our Cancer Antibodies collection featuring biomarkers involved in angiogenesis, coagulation signaling, and tumor progression.

Application Notes

Optimal dilution of the Tissue Factor Antibody / Coagulation and Tumor Signaling Marker should be determined by the researcher.

Immunogen

A portion of amino acids 50-250 from human F3 protein was used as the immunogen for the Tissue Factor antibody.

Storage

Aliquot the Tissue Factor antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Tissue Factor antibody, F3 antibody, CD142 antibody, Coagulation factor III antibody, Thromboplastin antibody, Tissue thromboplastin antibody

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