abcam

ab318167

Alexa Fluor® 647 Anti-Tissue Factor antibody [EPR22548-232]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 647
Excitation/Emission	Ex: 650nm, Em: 665nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR22548-232
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/50
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Flow Cyt

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information F3

Function	Initiates blood coagulation by forming a complex with circulating factor VII or VIIa. The [TF:VIIa] complex activates factors IX or X by specific limited proteolysis. TF plays a role in normal hemostasis by initiating the cell-surface assembly and propagation of the coagulation protease cascade.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle, Store in the dark

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

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Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Tissue Factor also known as coagulation factor III or CD142 is an important player in the blood coagulation process. This protein with a molecular mass of approximately 47 kDa is a transmembrane glycoprotein. It is expressed widely in various tissues including the lungs heart and brain and plays an important role in initiating the coagulation cascade when exposed to blood. In endothelial cells tissue factor is generally not present unless these cells are in a state of disturbance supporting its role as a primary defense mechanism against vascular injury.

Biological function summary	Tissue factor acts as a cofactor for factor VIIa forming a complex that rapidly catalyzes the activation of factor X to factor Xa. This catalytic action ultimately leads to fibrin formation which is essential for clotting. Tissue Factor (TF) is part of the extrinsic pathway of the coagulation cascade and is fundamental in the generation of a hemostatic response to tissue injury. By regulating thrombin generation through its interaction with other coagulation factors tissue factor plays an important role in maintaining hemostatic balance.
Pathways	Tissue factor is integral in the extrinsic pathway of coagulation which works closely with the intrinsic pathway to ensure effective hemostasis. It complexes with factor VIIa and triggers downstream effects involving proteins like factor X and thrombin. Tissue factor forms a bridge between cellular injury responses and the blood coagulation system linking these two significant physiological processes. The interaction with these proteins highlights its central role in hemostatic pathways and highlights its significance in the coagulation network.
Associated diseases and disorders	Tissue factor is associated with conditions like thrombosis and cardiovascular diseases where its expression can become dysregulated. Abnormal activation of tissue factor contributes directly to the pathological clot formation seen in thrombosis. It is also implicated in cancer-related coagulopathy where it can facilitate tumor-associated thrombosis by interacting with cancer cell surfaces. Additionally in such diseases the interplay between tissue factor and thrombin becomes important as it affects disease progression and the severity of clot-related complications.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

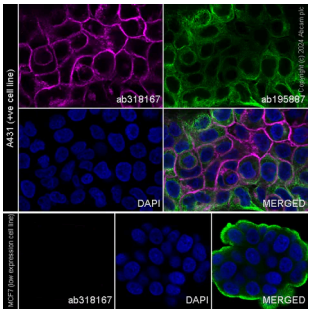
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:

3 product images



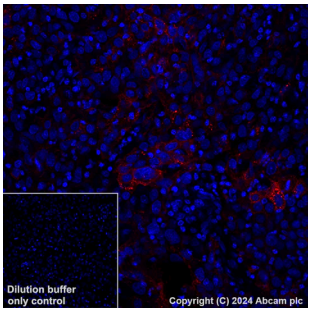
Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 647 Anti-Tissue Factor antibody [EPR22548-232] (ab318167)

Tissue Factor Immunocytochemistry/ Immunofluorescence staining of A431 (human epidermoid carcinoma epithelial cell) using rabbit Anti-Tissue Factor antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized A431 (human epidermoid carcinoma epithelial cell) cells labelling Tissue Factor with ab318167 at 1/50 (10.0 ug/ml) dilution (Green).

Confocal image showing membranous staining in A431 cell line (shown in magenta). The counterstain was observed in green. Nuclear DNA was labeled with DAPI (shown in blue). Low expression: MCF7 PMID: 24137414, 28938620). Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8).

ab195887 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 488) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).



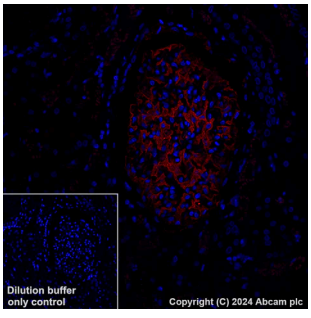
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 647 Anti-Tissue Factor antibody [EPR22548-232] (ab318167)

Immunohistochemical analysis of paraffin-embedded Human cervical cance tissue labeling Tissue Factor with ab318167 at 1/50 (10.0 ug/ml) dilution.

Positive staining on tumor cells of human cervix carcinoma.
The section was incubated with ab318167 for 60 mins at room temperature (shown in red). Nuclear DNA was labeled with DAPI (shown in blue). The section was then mounted using Fluoromount®.
The immunostaining was performed on a Leica Biosystems BOND RX instrument.
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Counterstained with DAPI.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 40 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 647 Anti-Tissue Factor antibody [EPR22548-232] (ab318167)

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling Tissue Factor with ab318167 at 1/50 (10.0 ug/ml) dilution.

Positive staining in human renal glomerulus.
The section was incubated with ab318167 for 60 mins at room temperature (shown in red). Nuclear DNA was labeled with DAPI (shown in blue). The section was then mounted using Fluoromount®.

The immunostaining was performed on a Leica Biosystems BOND RX instrument.
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Counterstained with DAPI.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 40 mins

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.