abcam

ab318995

Anti-Tissue Factor antibody [RM1198]

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Multiclonal
Immunogens	The exact immunogen used to generate this antibody is proprietary information.
Clone number	RM1198
Purification technique	Affinity purification Protein A
Specificity	unsuitable for mouse IHC-P and human IP
Concentration	0.497 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Species	Mouse
Dilution info	1/1000
Notes	-

Not recommended

Species	Rat
Dilution info	-
Notes	-

IP

Tested

Species	Mouse
Dilution info	1/30
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Species	Mouse
Dilution info	1/100
Notes	-

Not recommended

Species	Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/5000
Notes	-

Species	Mouse
Dilution info	1/50
Notes	-

Not recommended

Species	Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Mouse, Rat
Dilution info	-

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

Notes

What are recombinant multiclonals?
Recombinant multiclonals are a mixture of recombinant antibodies co-expressed from a library of heavy and light chains. They offer several advantages including:

- The sensitivity of polyclonal antibodies by recognising multiple epitopes
- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

View our range of recombinant multiclonal antibodies.

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.

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.

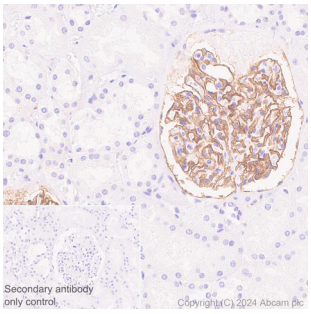
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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:
Terms & Conditions.

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12 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tissue Factor antibody [RM1198] (ab318995)

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling Tissue Factor with ab318995 at 1/2000 (0.249 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

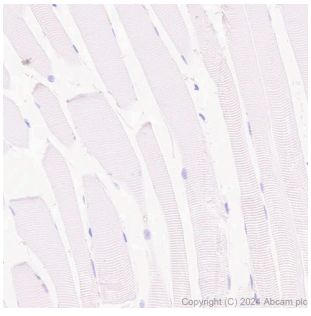
Positive staining on human kidney. The section was incubated with ab318995 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tissue Factor antibody [RM1198] (ab318995)

Tissue Factor Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human skeletal muscle using rabbit Anti-Tissue Factor antibody

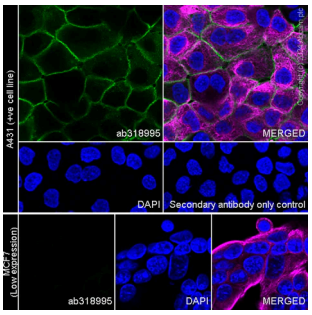
Immunohistochemical analysis of paraffin-embedded Human skeletal muscle tissue labeling Tissue Factor with ab318995 at 1/2000 (0.249 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative control: no staining on human skeletal muscle. The section was incubated with ab318995 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



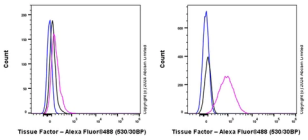
Immunocytochemistry/ Immunofluorescence - Anti-Tissue Factor antibody [RM1198] (ab318995)

Immunofluorescent analysis of 100% methanol-fixed, 0.1% Tween-20 permeabilized A431 (human epidermoid carcinoma epithelial cell) cells labelling Tissue Factor with ab318995 at 1/100 (4.97 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green).

Confocal image showing membranous and cytoplasmic staining in A431 cell line (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Low expression: MCF7 (PMID: 36980251).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.

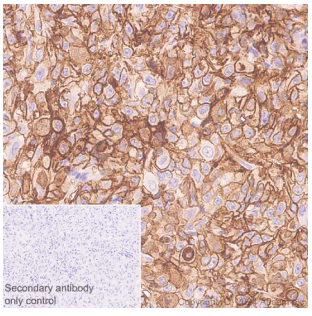


Flow Cytometry (Intracellular) - Anti-Tissue Factor antibody [RM1198] (ab318995)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized A431 (human epidermoid carcinoma epithelial cell) (Right) / MCF7 (human breast adenocarcinoma epithelial cell) (Left) cells labelling Tissue Factor with ab318995 at 1/5000 dilution (0.1ug) / Magenta compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Low expression: MCF7.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tissue Factor antibody [RM1198] (ab318995)

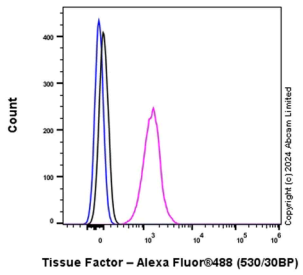
Immunohistochemical analysis of paraffin-embedded Human cervical carcinoma tissue labeling Tissue Factor with ab318995 at 1/2000 (0.249 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on human cervical carcinoma. The section was incubated with ab318995 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

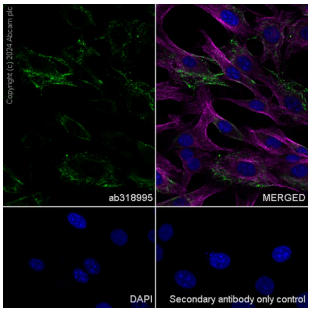
Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Flow Cytometry (Intracellular) - Anti-Tissue Factor antibody [RM1198] (ab318995)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized NIH/3T3 (mouse embryonic fibroblast) cells labelling Tissue Factor with ab318995 at 1/50 dilution (1ug) / Magenta compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



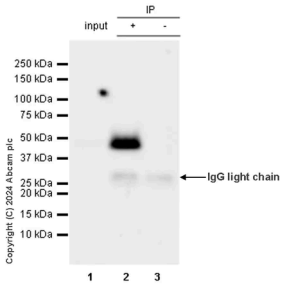
Immunocytochemistry/ Immunofluorescence - Anti-Tissue Factor antibody [RM1198] (ab318995)

Immunofluorescent analysis of 100% methanol-fixed, 0.1% Tween-20 permeabilized NIH/3T3 (mouse embryonic fibroblast) cells labelling Tissue Factor with ab318995 at 1/100 (4.97 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green).

Confocal image showing membranous and cytoplasmic staining in NIH/3T3 cell line (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.



Immunoprecipitation - Anti-Tissue Factor antibody [RM1198] (ab318995)

Tissue Factor was immunoprecipitated from 0.35 mg NIH/3T3 (mouse embryonic fibroblast) whole cell lysate with ab318995 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab318995 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.

Lane 1: NIH/3T3 (mouse embryonic fibroblast) whole cell lysate
Lane 2: ab318995 IP in NIH/3T3 (mouse embryonic fibroblast) whole cell lysate
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab318995 in NIH/3T3 whole cell lysate

All lanes:
Immunoprecipitation - Anti-Tissue Factor antibody [RM1198] (ab318995) at 1/30 dilution

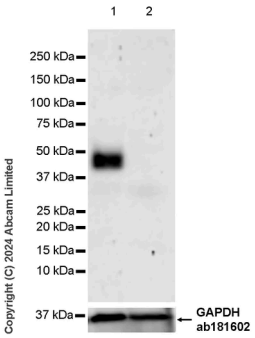
All lanes:

NIH/3T3 (mouse embryonic fibroblast) whole cell lysate

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 24s



Western blot - Anti-Tissue Factor antibody [RM1198] (ab318995)

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-Tissue Factor antibody [RM1198] (ab318995) at 1/1000 dilution

Lane 1:
Wide-type HAP1 (human chronic myelogenous leukemia near-haploid cell) whole cell lysate at 60 µg

Lane 2:
Tissue Factor knockout HAP1 whole cell lysate at 60 µg

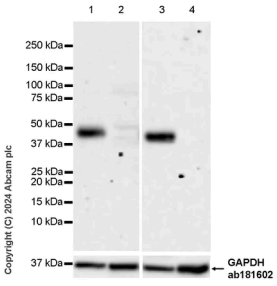
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Developed using the ECL technique.

Observed band size: 47 kDa, 36 kDa

Exposure time: 180s



Western blot - Anti-Tissue Factor antibody [RM1198] (ab318995)

Tissue Factor Western blot staining using rabbit Anti-Tissue Factor antibody

Low expression: skeletal muscle.

Lane 1 and 2 were developed using a high sensitivity ECL substrate.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

Exposure time: Lane 1-2: 180 seconds; Lane 3-4: 114 seconds

All lanes:
Western blot - Anti-Tissue Factor antibody [RM1198] (ab318995) at 1/1000 dilution

Lane 1:
Human hippocampus tissue lysate at 20 µg

Lane 2:
Human skeletal muscle tissue lysate at 20 µg

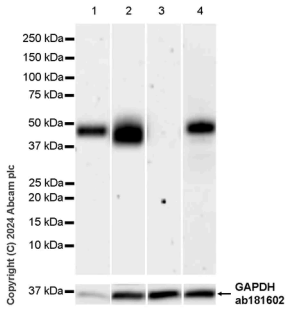
Lane 3:
Mouse brain tissue lysate at 20 µg

Lane 4:
Mouse skeletal muscle tissue lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 47 kDa, 36 kDa



Western blot - Anti-Tissue Factor antibody [RM1198] (ab318995)

Tissue Factor Western blot staining using rabbit Anti-Tissue Factor antibody

Low expression: MCF-7 (PMID: 24137414, PMID: 28938620).

Lane 4 was developed using a high sensitivity ECL substrate.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

Exposure time: Lane 1: 180 seconds; Lane 2: 26 seconds; Lane 3: 148 seconds; Lane 4: 70 seconds

All lanes:
Western blot - Anti-Tissue Factor antibody [RM1198] (ab318995) at 1/1000 dilution

Lane 1:
A431 (human epidermoid carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
BxPC-3 (human pancreas adenocarcinoma epithelial cell) whole cell lysate at 20 µg

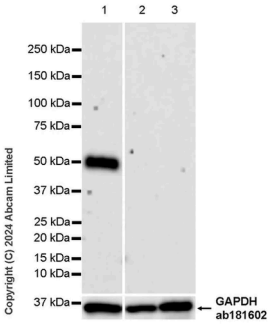
Lane 3:
MCF7 (human breast adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 4:
NIH/3T3 (mouse embryonic fibroblast) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 47 kDa, 36 kDa



Western blot - Anti-Tissue Factor antibody [RM1198] (ab318995)

Tissue Factor Western blot staining using rabbit Anti-Tissue Factor antibody

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-Tissue Factor antibody [RM1198] (ab318995) at 1/1000 dilution

Lane 1:
B16-F10 (mouse skin melanoma cell) whole cell lysate at 20 µg

Lane 2:
A20 (mouse reticulum sarcoma B lymphocyte) whole cell lysate at 20 µg

Lane 3:
EL4 (mouse lymphoma T lymphocyte) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 47 kDa, 36 kDa

Exposure time: 180s

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