abcam

Product datasheet

Anti-Tissue Plasminogen Activator antibody [EPR7232(2)] ab157469

Recombinant RabMAb

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Overview

Product name	Anti-Tissue Plasminogen Activator antibody [EPR7232(2)]
Description	Rabbit monoclonal [EPR7232(2)] to Tissue Plasminogen Activator
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P **Unsuitable for:** IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Mouse plasma, Rat plasma, Human plasma, and Human liver lysates; IHC-P: human lung carcinoma, cervical carcinoma, skeletal muscle, brain, kidney and liver tissue, mouse and rat liver tissue
General notes	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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR7232(2)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab157469 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★☆☆ (1)	1/1000 - 1/5000. Predicted molecular weight: 63 kDa.
IHC-P		1/100 - 1/1000. Perform heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0).

Application notes Is unsuitable for IP.

Target

Function Converts the abundant, but inactive, zymogen plasminogen to plasmin by hydrolyzing a single Arg-Val bond in plasminogen. By controlling plasmin-mediated proteolysis, it plays an important role in tissue remodeling and degradation, in cell migration and many other physiopathological events. Play a direct role in facilitating neuronal migration.

Tissue specificity Synthesized in numerous tissues (including tumors) and secreted into most extracellular body fluids, such as plasma, uterine fluid, saliva, gingival crevicular fluid, tears, seminal fluid, and milk.

Involvement in disease Note=Increased activity of TPA results in increased fibrinolysis of fibrin blood clots that is associated with excessive bleeding. Defective release of TPA results in hypofibrinolysis that can lead to thrombosis or embolism.

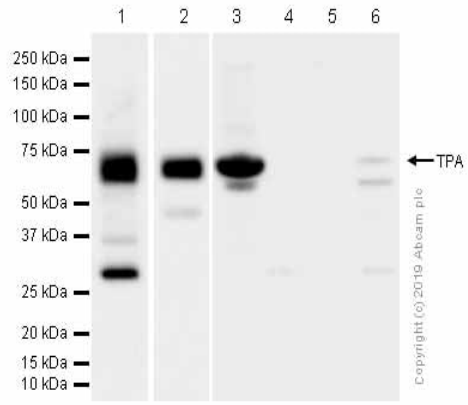
Sequence similarities Belongs to the peptidase S1 family.
Contains 1 EGF-like domain.
Contains 1 fibronectin type-I domain.
Contains 2 kringle domains.
Contains 1 peptidase S1 domain.

Domain Both FN1 and one of the kringle domains are required for binding to fibrin.
Both FN1 and EGF-like domains are important for binding to LRP1.
The FN1 domain mediates binding to annexin A2.
The second kringle domain is implicated in binding to cytokeratin-8 and to the endothelial cell surface binding site.

Post-translational modifications The single chain, almost fully active enzyme, can be further processed into a two-chain fully active form by a cleavage after Arg-310 catalyzed by plasmin, tissue kallikrein or factor Xa.
Differential cell-specific N-linked glycosylation gives rise to two glycoforms, type I (glycosylated at Asn-219) and type II (not glycosylated at Asn-219). The single chain type I glycoform is less readily converted into the two-chain form by plasmin, and the two-chain type I glycoform has a lower activity than the two-chain type II glycoform in the presence of fibrin.
N-glycosylation of Asn-152; the bound oligomannosidic glycan is involved in the interaction with the mannose receptor.
Characterization of O-linked glycan was studied in Bowes melanoma cell line.

Cellular localization Secreted > extracellular space.

Images



Western blot - Anti-Tissue Plasminogen Activator antibody [EPR7232(2)] (ab157469)

All lanes : Anti-Tissue Plasminogen Activator antibody [EPR7232(2)] (ab157469) at 1/1000 dilution (Purified)

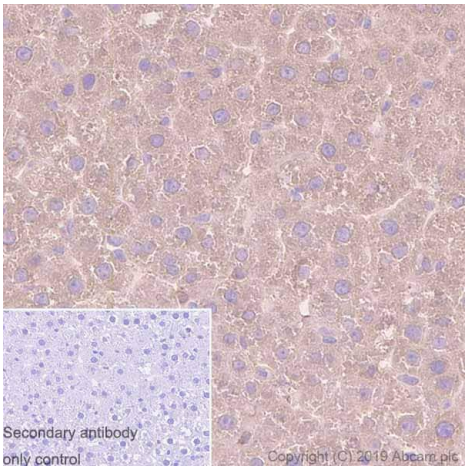
Lane 1 : Mouse plasma lysates
Lane 2 : Rat plasma lysates
Lane 3 : Human plasma lysates
Lane 4 : Human brain lysates
Lane 5 : Human heart lysates
Lane 6 : Human liver lysates

Lysates/proteins at 15 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

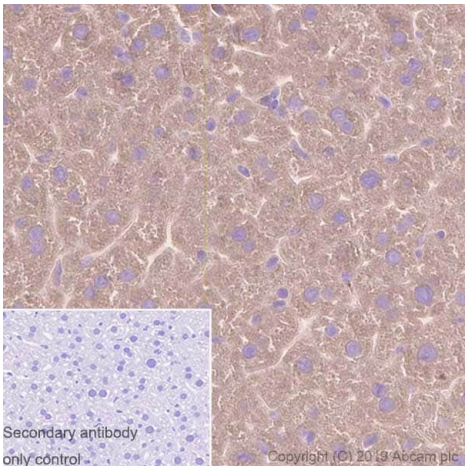
Predicted band size: 63 kDa
Observed band size: 68 kDa

T-PA is serected and mainly released into blood and extracellular fluid to activate plasminogen. The molecular weight observed is consistent with what has been described in PMID: 22069469



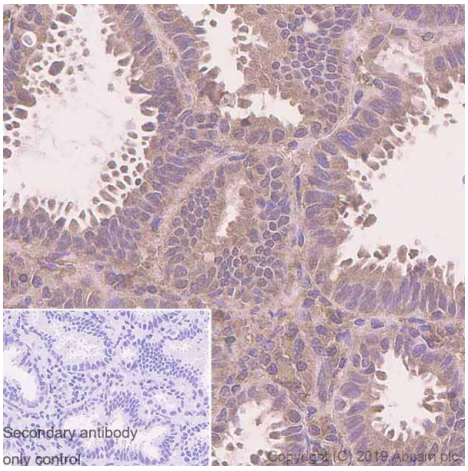
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tissue Plasminogen Activator antibody [EPR7232(2)] (ab157469)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat liver tissue sections labeling TPA Tissue Plasminogen Activator with purified ab157469 at 1/1000 dilution (1.91 µg/ml). Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



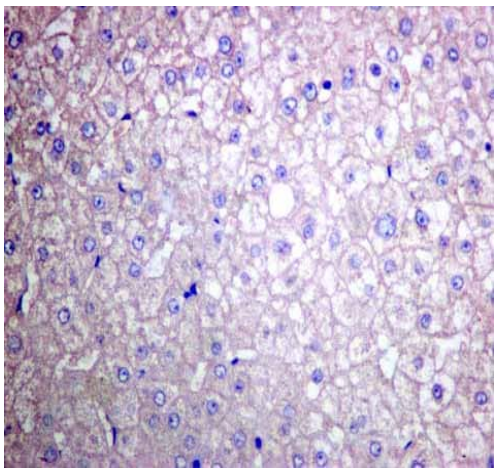
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tissue Plasminogen Activator antibody [EPR7232(2)] (ab157469)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse liver tissue sections labeling TPA Tissue Plasminogen Activator with purified ab157469 at 1/1000 dilution (1.91 µg/ml). Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



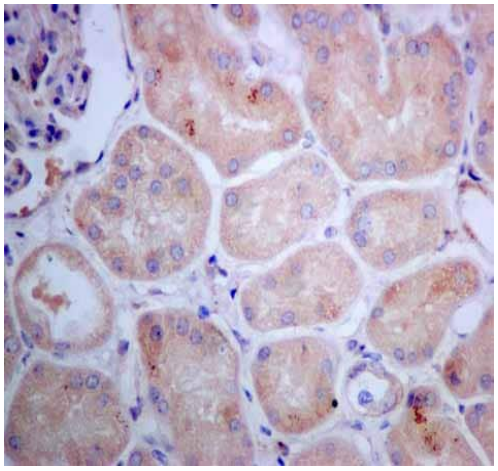
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tissue Plasminogen Activator antibody [EPR7232(2)] (ab157469)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lung carcinoma tissue sections labeling TPA Tissue Plasminogen Activator with purified ab157469 at 1/1000 dilution (1.91 µg/ml). Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



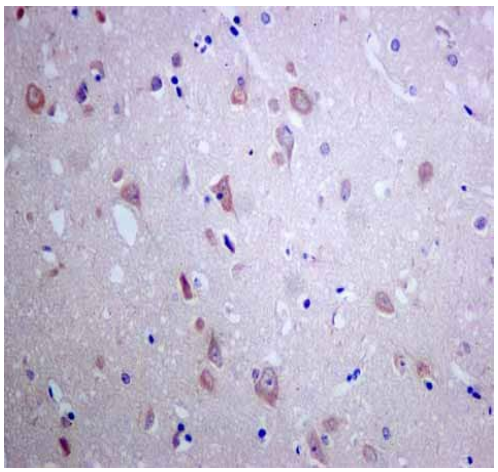
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tissue Plasminogen Activator antibody [EPR7232(2)] (ab157469)

ab157469 (unpurified) showing +ve staining in Human normal liver.



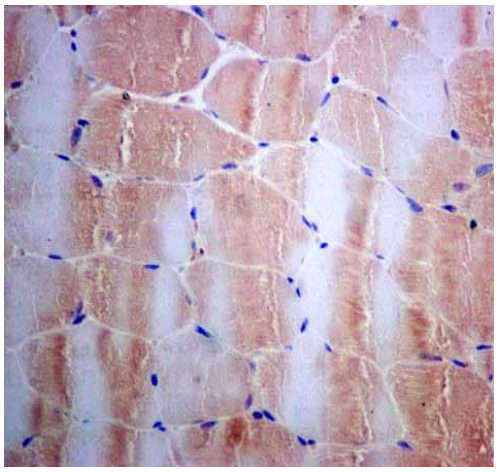
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tissue Plasminogen Activator antibody [EPR7232(2)] (ab157469)

ab157469 (unpurified) showing +ve staining in Human normal kidney.



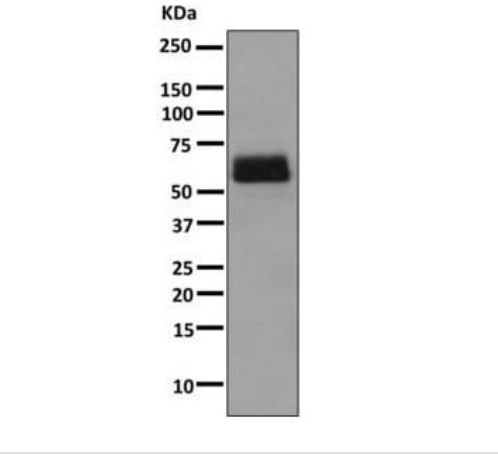
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tissue Plasminogen Activator antibody [EPR7232(2)] (ab157469)

ab157469 (unpurified) showing +ve staining in Human normal brain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tissue Plasminogen Activator antibody [EPR7232(2)] (ab157469)

ab157469 (unpurified) showing +ve staining in Human skeletal muscle.



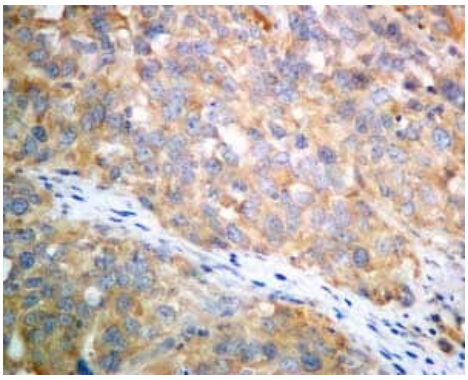
Western blot - Anti-Tissue Plasminogen Activator antibody [EPR7232(2)] (ab157469)

Anti-Tissue Plasminogen Activator antibody [EPR7232(2)] (ab157469) at 1/1000 dilution (unpurified) + Human plasma lysate at 10 µg

Secondary

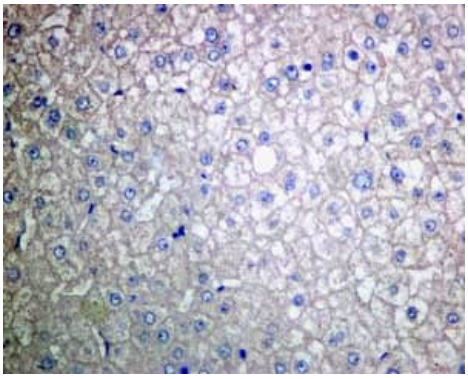
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 63 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tissue Plasminogen Activator antibody [EPR7232(2)] (ab157469)

Immunohistochemical analysis of paraffin-embedded Human cervial carcinoma tissue labeling TPA Tissue Plasminogen Activator with ab157469 (unpurified) 1/100 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tissue Plasminogen Activator antibody [EPR7232(2)] (ab157469)

Immunohistochemical analysis of paraffin-embedded Human liver tissue labeling TPA Tissue Plasminogen Activator with ab157469 (unpurified) at 1/100 dilution.

Anti-Tissue Plasminogen Activator antibody [EPR7232(2)] (ab157469)

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