

Product datasheet

Anti-Thrombomodulin antibody [EPR18217-209] ab230010

Recombinant RabMAb

2 References [9 Images](#)

Overview

| | |
|----------------------------|---|
| Product name | Anti-Thrombomodulin antibody [EPR18217-209] |
| Description | Rabbit monoclonal [EPR18217-209] to Thrombomodulin |
| Host species | Rabbit |
| Tested applications | Suitable for: IHC-Fr, ICC/IF, IP, Flow Cyt, IHC-P, WB |
| Species reactivity | Reacts with: Mouse |
| Immunogen | Recombinant fragment. This information is proprietary to Abcam and/or its suppliers. |
| Positive control | WB: Mouse lung and placenta tissue lysates; bEND.3 whole cell lysate. IHC-P: Mouse lung and stomach tissues. IHC-Fr: Mouse embryo E14.5 (developing lung) tissue. ICC/IF: bEND.3 cells. Flow Cyt: bEND.3 cells. IP: bEND.3 whole cell lysate; Mouse lung tissue lysate. |
| General notes | <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> |

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 | <p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p> |
| Purity | Protein A purified |
| Clonality | Monoclonal |

| | |
|--------------|--------------|
| Clone number | EPR18217-209 |
| Isotype | IgG |

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab230010 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 |
|-------------|-----------|---|
| IHC-Fr | | 1/500. Perform heat mediated antigen retrieval by using sodium citrate buffer (10 mM citrate pH 6.0 + 0.05% Tween-20). |
| ICC/IF | | 1/100. |
| IP | | 1/30. |
| Flow Cyt | | 1/500. |
| IHC-P | | 1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. |
| WB | | 1/1000. Detects a band of approximately 75,105 kDa (predicted molecular weight: 62 kDa). |

Target

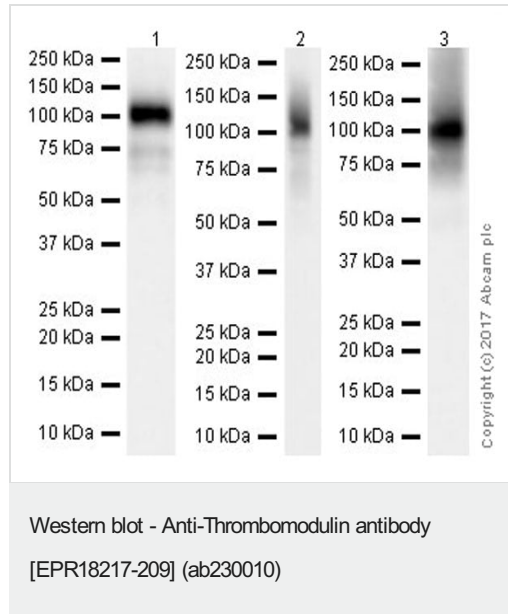
| | |
|---|--|
| Function | Thrombomodulin is a specific endothelial cell receptor that forms a 1:1 stoichiometric complex with thrombin. This complex is responsible for the conversion of protein C to the activated protein C (protein Ca). Once evolved, protein Ca scissions the activated cofactors of the coagulation mechanism, factor Va and factor VIIIa, and thereby reduces the amount of thrombin generated. |
| Tissue specificity | Endothelial cells are unique in synthesizing thrombomodulin. |
| Involvement in disease | Defects in THBD are the cause of thrombophilia due to thrombomodulin defect (THR-THBD) [MIM:188040]. A hemostatic disorder characterized by a tendency to thrombosis. Defects in THBD are a cause of susceptibility to hemolytic uremic syndrome atypical type 6 (AHUS6) [MIM:612926]. An atypical form of hemolytic uremic syndrome. It is a complex genetic disease characterized by microangiopathic hemolytic anemia, thrombocytopenia, renal failure and absence of episodes of enterocolitis and diarrhea. In contrast to typical hemolytic uremic syndrome, atypical forms have a poorer prognosis, with higher death rates and frequent progression to end-stage renal disease. Note=Susceptibility to the development of atypical hemolytic uremic syndrome can be conferred by mutations in various components of or regulatory factors in the complement cascade system. Other genes may play a role in modifying the phenotype. |
| Sequence similarities | Contains 1 C-type lectin domain. Contains 6 EGF-like domains. |
| Post-translational modifications | N-glycosylated. The iron and 2-oxoglutarate dependent 3-hydroxylation of aspartate and asparagine is (R) |

stereospecific within EGF domains.

Cellular localization

Membrane.

Images



All lanes : Anti-Thrombomodulin antibody [EPR18217-209] (ab230010) at 1/1000 dilution

Lane 1 : Mouse lung tissue lysate at 20 µg

Lane 2 : bEND.3 (mouse brain endothelioma cell line) whole cell lysate at 10 µg

Lane 3 : Mouse placenta tissue lysate at 10 µg

Secondary

Lane 1 : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Lanes 2-3 : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/50000 dilution

Developed using the ECL technique.

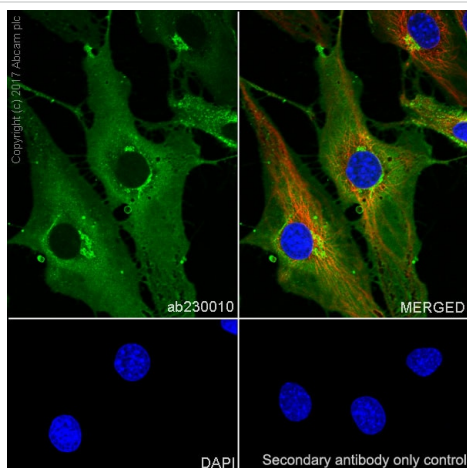
Predicted band size: 62 kDa

Observed band size: 105,75 kDa

Exposure times: Lane 1: 1 minute; Lane 2: 20 seconds; Lane 3: 10 seconds.

Blocking/Dilution buffer: 5% NFDm/TBST.

The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument.

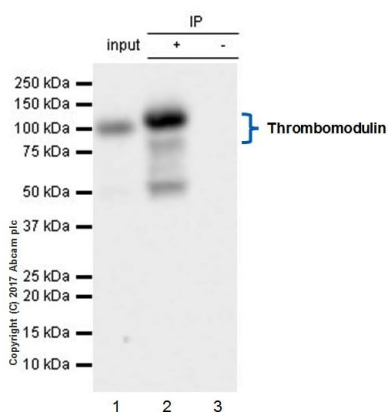


Immunocytochemistry/ Immunofluorescence - Anti-Thrombomodulin antibody [EPR18217-209] (ab230010)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized bEND.3 (mouse brain endothelioma cell line) cells labeling Thrombomodulin with ab230010 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic and membranous staining in bEND.3 cell line (PMID: 7622601; PMID: 8223719).

The nuclear counterstain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) ([ab195889](#)) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution.



Immunoprecipitation - Anti-Thrombomodulin antibody [EPR18217-209] (ab230010)

Thrombomodulin was immunoprecipitated from 0.35 mg of mouse lung tissue lysate with ab230010 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab230010 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/5000 dilution.

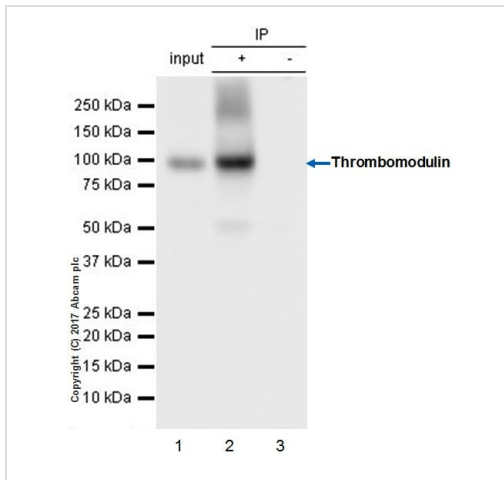
Lane 1: Mouse lung tissue lysate 10 µg (Input).

Lane 2: ab230010 IP in mouse lung tissue lysate.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab230010 in mouse lung tissue lysate.

Exposure time: 10 seconds.

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



Immunoprecipitation - Anti-Thrombomodulin antibody
[EPR18217-209] (ab230010)

Thrombomodulin was immunoprecipitated from 0.35 mg of bEND.3 (mouse brain endothelioma cell line) whole cell lysate with ab230010 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab230010 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/5000 dilution.

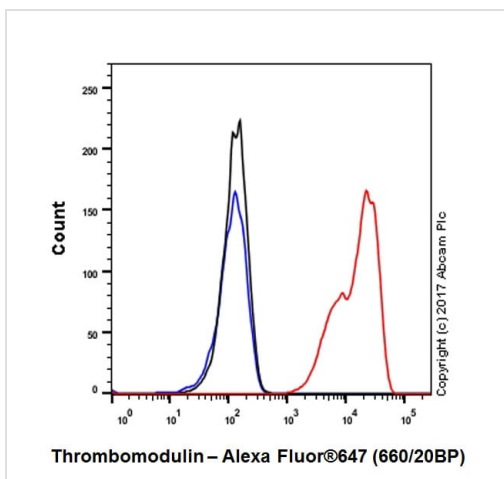
Lane 1: bEND.3 whole cell lysate 10 µg (Input).

Lane 2: ab230010 IP in bEND.3 whole cell lysate.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab230010 in bEND.3 whole cell lysate.

Exposure time: 10 seconds.

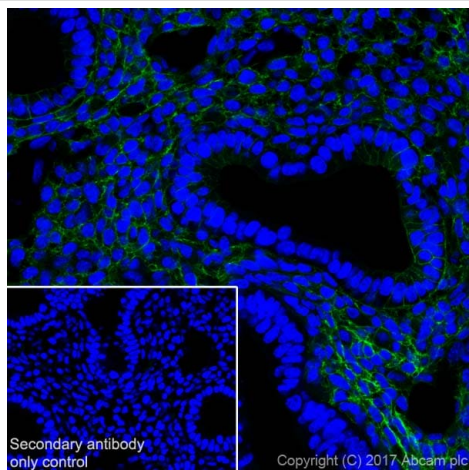
Blocking and dilution buffer and concentration: 5% NFDM/TBST.



Flow Cytometry - Anti-Thrombomodulin antibody
[EPR18217-209] (ab230010)

Flow cytometric analysis of bEND.3 (mouse brain endothelioma cell line) cells labeling Thrombomodulin with ab230010 at 1/500 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control ([ab172730](#)) (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)), at 1/2000 dilution was used as the secondary antibody.

Gated on total viable cells.

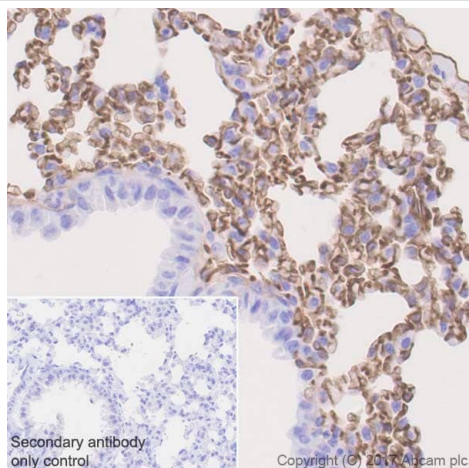


Immunohistochemistry (Frozen sections) - Anti-Thrombomodulin antibody [EPR18217-209] (ab230010)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen mouse embryo E14.5 (developing lung) tissue labeling Thrombomodulin with ab230010 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) at 1/1000 dilution (green). Positive membrane staining in the developing lung in mouse E14.5 embryo (PMID: 28306049) is observed.

The nuclear counterstain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) at 1/1000 dilution.

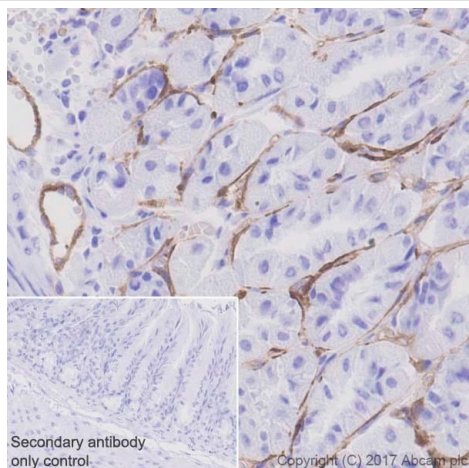


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thrombomodulin antibody [EPR18217-209] (ab230010)

Immunohistochemical analysis of paraffin-embedded mouse lung tissue labeling Thrombomodulin with ab230010 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on endothelial cells of mouse lung (PMID: 23946288; PMID: 10231031) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thrombomodulin antibody [EPR18217-209] (ab230010)

Immunohistochemical analysis of paraffin-embedded mouse stomach tissue labeling Thrombomodulin with ab230010 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on endothelial cells of mouse stomach (PMID: 23946288; PMID: 10231031) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Thrombomodulin antibody [EPR18217-209] (ab230010)

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