abcam

Product datasheet

Anti-Thrombomodulin antibody [EPR18217-209] - BSA and Azide free ab230152

Recombinant RabMAb

8 Images

Overview

Product name	Anti-Thrombomodulin antibody [EPR18217-209] - BSA and Azide free
Description	Rabbit monoclonal [EPR18217-209] to Thrombomodulin - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-Fr, ICC/IF, IP, Flow Cyt, IHC-P
Species reactivity	**Reacts with:** Mouse
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Mouse lung tissue.
General notes	ab230152 is the carrier-free version of **ab230010**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. 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. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR18217-209
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab230152 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		Use at an assay dependent concentration. Detects a band of approximately 75,105 kDa (predicted molecular weight: 62 kDa).
IHC-Fr		Use at an assay dependent concentration. Perform heat mediated antigen retrieval by using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).
ICC/IF		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
Flow Cyt		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target

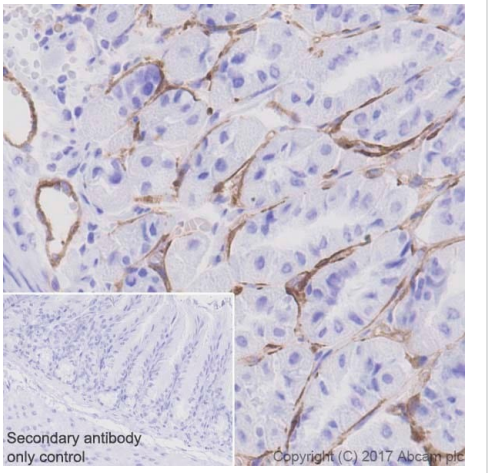
Function Thrombomodulin is a specific endothelial cell receptor that forms a 1:1 stoichiometric complex with thrombin. This complex is responsible for the conversion of protein C to the activated protein C (protein Ca). Once evolved, protein Ca scissions the activated cofactors of the coagulation mechanism, 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



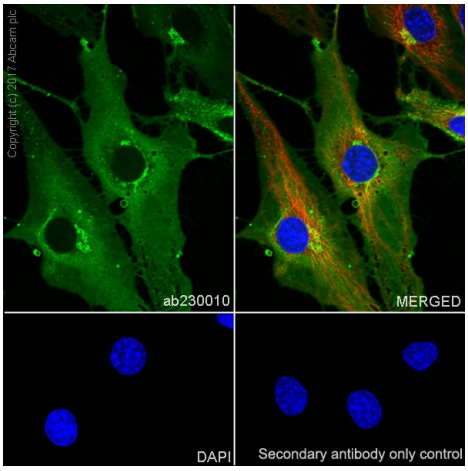
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thrombomodulin antibody [EPR18217-209] - BSA and Azide free (ab230152)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab230010**).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



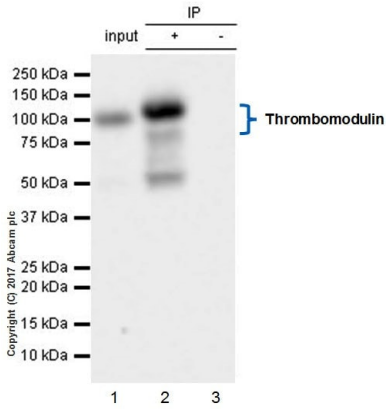
Immunocytochemistry/ Immunofluorescence - Anti-Thrombomodulin antibody [EPR18217-209] - BSA and Azide free (ab230152)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab230010**).



Immunoprecipitation - Anti-Thrombomodulin antibody [EPR18217-209] - BSA and Azide free (ab230152)

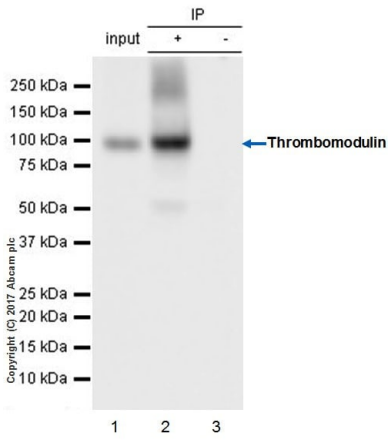
Thrombomodulin was immunoprecipitated from 0.35 mg of mouse lung tissue lysate with **ab230010** at 1/30 dilution. Western blot was performed from the immunoprecipitate using **ab230010** at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/5000 dilution.

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab230010**).



Immunoprecipitation - Anti-Thrombomodulin antibody [EPR18217-209] - BSA and Azide free (ab230152)

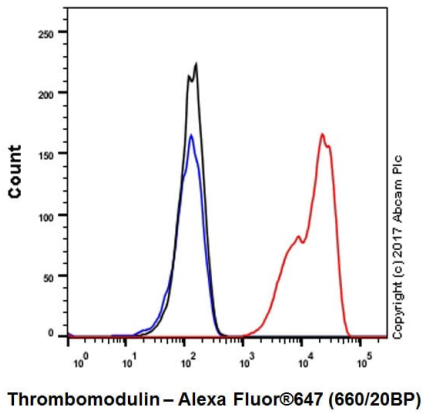
Thrombomodulin was immunoprecipitated from 0.35 mg of bEND.3 (mouse brain endothelioma cell line) whole cell lysate with **ab230010** at 1/30 dilution. Western blot was performed from the immunoprecipitate using **ab230010** at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**),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

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab230010**).

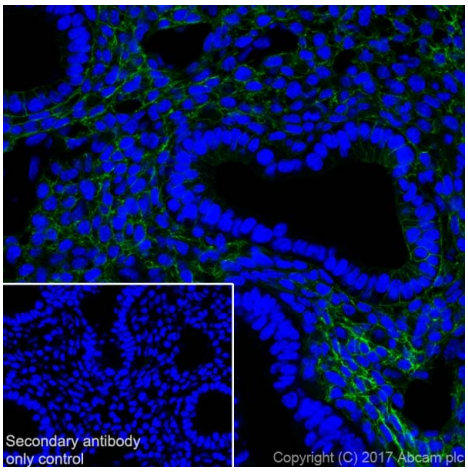


Flow Cytometry - Anti-Thrombomodulin antibody [EPR18217-209] - BSA and Azide free (ab230152)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab230010**).



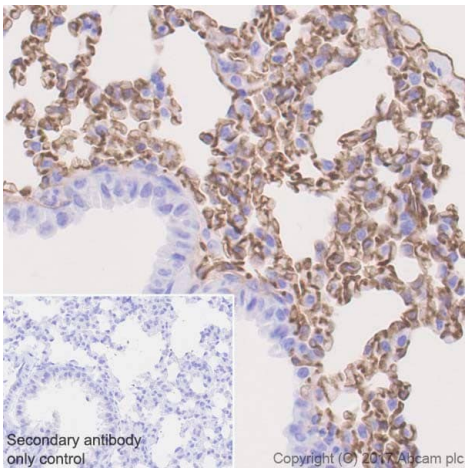
Immunohistochemistry (Frozen sections) - Anti-Thrombomodulin antibody [EPR18217-209] - BSA and Azide free (ab230152)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab230010**).



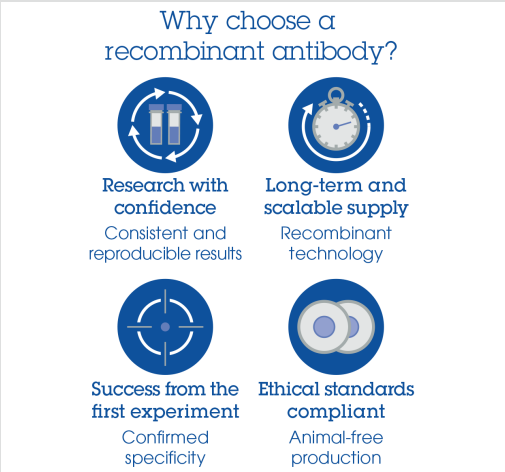
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thrombomodulin antibody [EPR18217-209] - BSA and Azide free (ab230152)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab230010**).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Anti-Thrombomodulin antibody [EPR18217-209] - BSA and Azide free (ab230152)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors