abcam

Product datasheet

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

Recombinant RabMAb

7 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 within Mouse Thrombomodulin aa 300-550. The exact sequence is proprietary. Database link: P15306
Positive control	IHC-P: Mouse lung tissue.
General notes	Ab230152 is the carrier-free version of ab230010. This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes. Our carrier-free formats are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency. 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. ab230152 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm. *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 short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR18217-209
Isotype	IgG

Applications

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.

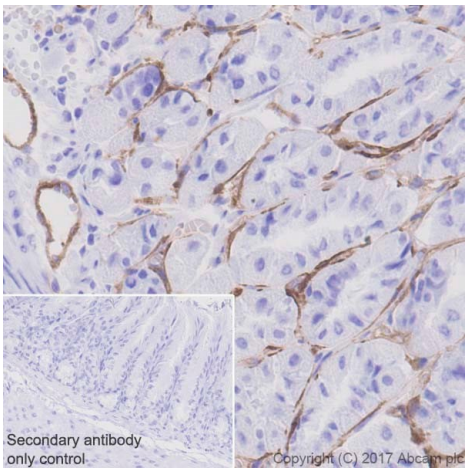
Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Detects a band of approximately 75,105 kDa (predicted molecular weight: 62 kDa).
IHC-Fr		Use at an assay dependent concentration. Perform heat mediated antigen retrieval by using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% 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



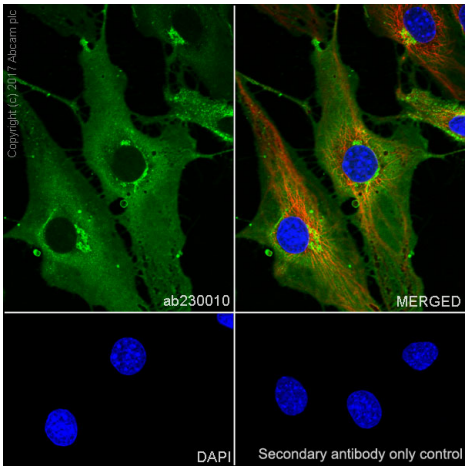
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thrombomodulin antibody [EPR18217-209] - BSA and Azide free (ab230152)

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.



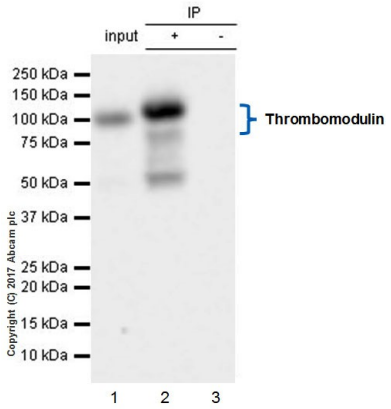
Immunocytochemistry/ Immunofluorescence - Anti-Thrombomodulin antibody [EPR18217-209] - BSA and Azide free (ab230152)

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)

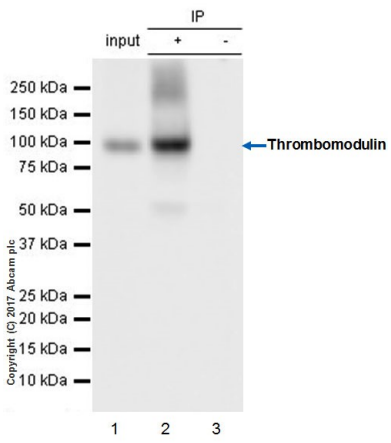
Thrombomodulin was immunoprecipitated from 0.35 mg of mouse lung tissue lysate with ab230010 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab230010 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/5000 dilution.

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)

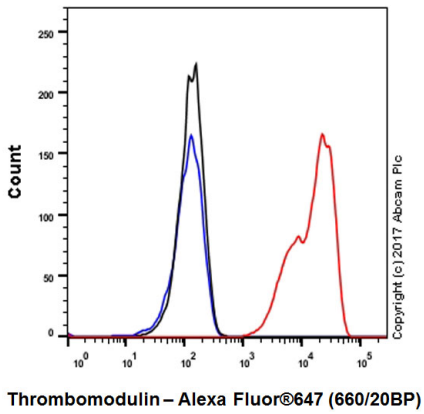
Thrombomodulin was immunoprecipitated from 0.35 mg of bEND.3 (mouse brain endothelioma cell line) whole cell lysate with ab230010 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab230010 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for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

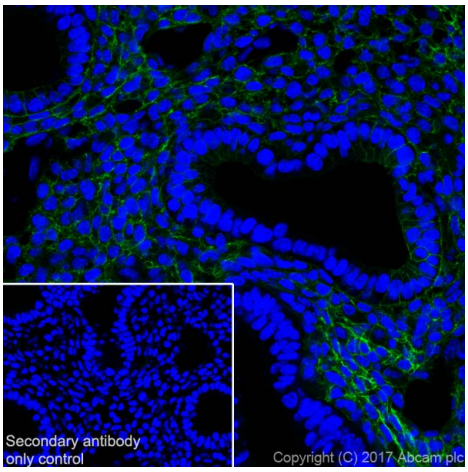


Flow Cytometry - Anti-Thrombomodulin antibody [EPR18217-209] - BSA and Azide free (ab230152)

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).



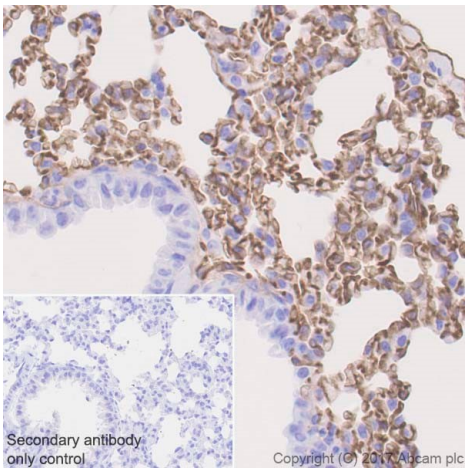
Immunohistochemistry (Frozen sections) - Anti-Thrombomodulin antibody [EPR18217-209] - BSA and Azide free (ab230152)

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.

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