# abcam

## Product datasheet

# Anti-Thrombomodulin antibody [EPR4051] ab109189

ועלשעבע RabMAb

★★★★ 4 Abreviews 11 References 画像数 14

#### 製品の概要

製品名 Anti-Thrombomodulin antibody [EPR4051]

製品の詳細 Rabbit monoclonal [EPR4051] to Thrombomodulin

由来種 Rabbit

アプリケーション 適用あり: Flow Cyt (Intra), WB, IP, IHC-P, ICC/IF

種交差性 交差種: Human

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

ポジティブ・コントロール THP-1, Human placenta and Human heart lysates; Human placenta tissue, Human squamous

cervical carcinoma tissue; A431 cells

特記事項 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**.

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with

these species. Please contact us for more information.

#### 製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C.

Stable for 12 months at -20°C.

バッファー pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 40% Glycerol, 0.05% BSA, PBS

精製度 Protein A purified

ポリモノ モノクローナル

アイソタイプ

lgG

#### アプリケーション

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab109189の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
Flow Cyt (Intra)		Use at an assay dependent concentration. <b>ab172730</b> - Rabbit monoclonal lgG, is suitable for use as an isotype control with this antibody.
WB	<b>★★★★</b> <u>(1)</u>	1/1000 - 1/10000. Predicted molecular weight: 60 kDa.
IP		1/10 - 1/100.
IHC-P	<b>★★★★</b> ★ (2)	1/100 - 1/1000. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.  See IHC antigen retrieval protocols.
ICC/IF		1/100 - 1/300.

#### ターゲット情報

機能

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.

組織特異性

関連疾患

Endothelial cells are unique in synthesizing thrombomodulin.

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.

配列類似性

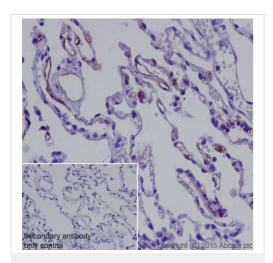
Contains 1 C-type lectin domain. Contains 6 EGF-like domains.

翻訳後修飾

N-glycosylated.

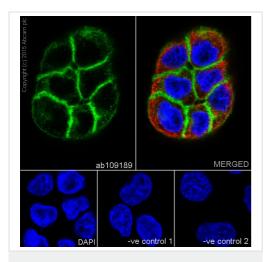
The iron and 2-oxoglutarate dependent 3-hydroxylation of aspartate and asparagine is (R) stereospecific within EGF domains.

#### 画像



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Thrombomodulin antibody [EPR4051] (ab109189)

Immunohistochemical staining of paraffin embedded human lung with purified ab109189 at a working dilution of 1/1000. The secondary antibody used is HRP goat anti-rabbit lgG H&L (ab97051) at 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.

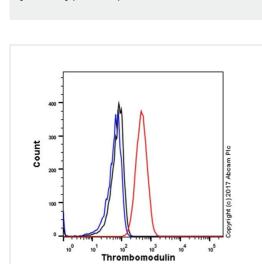


Immunocytochemistry/ Immunofluorescence - Anti-Thrombomodulin antibody [EPR4051] (ab109189)

Immunofluorescence staining of A431 cells with purified ab109189 at a working dilution of 1/300, counter-stained with DAPI. The secondary antibody was Alexa Fluor<sup>®</sup> 488 goat anti-rabbit (ab150077), used at a dilution of 1/1000. ab7291, a mouse antitubulin antibody (1/1000), was used to stain tubulin along with ab150120 (Alexa Fluor<sup>®</sup> 594 goat anti-mouse, 1/1000), shown in the top right hand panel. The cells were fixed in 4% PFA and permeabilized using 0.1% Triton X 100. The negative controls are shown in bottom middle and right hand panels - for negative control 1, purified ab109189 was used at a dilution of 1/500 followed by an Alexa Fluor<sup>®</sup> 594 goat anti-mouse antibody (ab150120) at a dilution of 1/500. For negative control 2, ab7291 (mouse antitubulin) was used at a dilution of 1/500 followed by an Alexa Fluor<sup>®</sup> 488 goat anti-rabbit antibody (ab150077) at a dilution of 1/400.



Western blot - Anti-Thrombomodulin antibody [EPR4051] (ab109189)



Flow Cytometry (Intracellular) - Anti-Thrombomodulin antibody [EPR4051] (ab109189)

- Alexa Fluor® 488 (530/30 BP)

Anti-Thrombomodulin antibody [EPR4051] (ab109189) at 1/10000 dilution (purified) + human placenta lysate at 10 µg

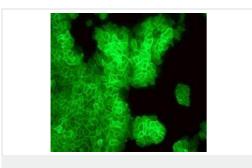
#### Secondary

HRP goat anti-rabbit lgG (H+L) at 1/1000 dilution

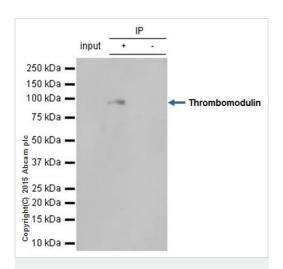
**Predicted band size:** 60 kDa **Observed band size:** 100 kDa

Blocking buffer: 5% NFDM/TBST Dilution buffer: 5% NFDM/TBST

Intracellular Flow Cytometry analysis of A431 (human epidermoid carcinoma) cells labeling Thrombomodulin with purified ab109189 at 1/150 (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) (1/2000 dilution) was used as the secondary antibody. Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.

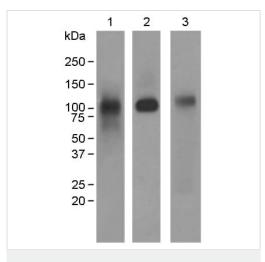


Immunocytochemistry/ Immunofluorescence - Anti-Thrombomodulin antibody [EPR4051] (ab109189) Unpurified ab109189, at 1/100 dilution, staining Thombomodulin in A431 cells by Immunofluorescence.



Immunoprecipitation - Anti-Thrombomodulin antibody [EPR4051] (ab109189)

ab109189 (purified) at 1/90 immunoprecipitating thrombomodulin in 10 µg human placenta whole cell lysate (Lanes 1 and 2, observed at 100 kDa). Lane 3 - PBS. For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10,000 dilution. Blocking buffer and concentration: 5% NFDM/TBST Dilution buffer and concentration: 5% NFDM/TBST



Western blot - Anti-Thrombomodulin antibody [EPR4051] (ab109189)

**All lanes :** Anti-Thrombomodulin antibody [EPR4051] (ab109189) at 1/1000 dilution (unpurified)

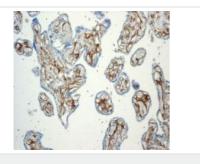
Lane 1: THP-1 cell lysate

Lane 2: Human placenta lysate

Lane 3: Human heart lysate

Lysates/proteins at 10 µg per lane.

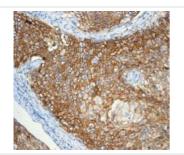
Predicted band size: 60 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Thrombomodulin antibody [EPR4051] (ab109189)

Unpurified ab109189, at 1/100 dilution, staining Thrombomodulin in Human placenta tissue by Immunohistochemistry.

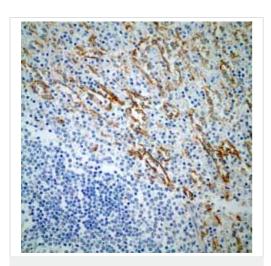
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Thrombomodulin antibody [EPR4051] (ab109189)

Unpurified ab109189, at 1/100 dilution, staining Thrombomodulin in Human squamous cervical carcinoma tissue by Immunohistochemistry.

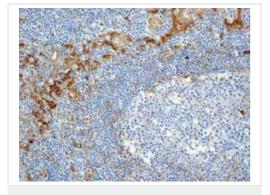
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Thrombomodulin antibody [EPR4051] (ab109189)

Immunohistochemical analysis of paraffin embedded normal Human spleen tissue using unpurified ab109189 showing +ve staining.

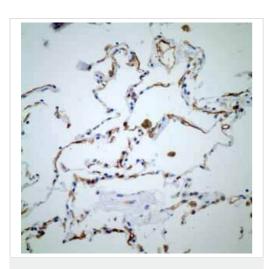
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Thrombomodulin antibody [EPR4051] (ab109189)

Immunohistochemical analysis of paraffin embedded normal Human tonsil tissue using unpurified ab109189 showing +ve staining.

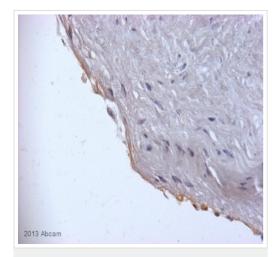
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Thrombomodulin antibody [EPR4051] (ab109189)

Immunohistochemical analysis of paraffin embedded normal Human lung tissue using unpurified ab109189 showing +ve staining.

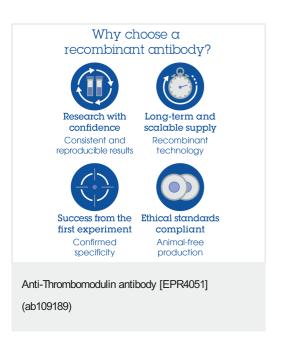
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Thrombomodulin antibody [EPR4051] (ab109189)

This image is courtesy of an anonymous Abreview

Unpurified ab109189 staining Thrombomodulin in Human artery tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 20% serum for 60 minutes at 21°C; antigen retrieval was by heat mediation in a citrate buffer. Samples were incubated with primary antibody (1/200) for 16 hours at 4°C. A Biotin-conjugated Goatanti-rabbit polyclonal (1/200) was used as the secondary antibody.



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