

**Anti-Thrombomodulin / CD141 Antibody**  
**Mouse Monoclonal Antibody**  
**Catalog # AH13534****Specification**

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**Anti-Thrombomodulin / CD141 Antibody - Product Information**

Application	,1,14,3,4,10,
Primary Accession	<a href="#">P07204</a>
Other Accession	<a href="#">2030</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2b, kappa
Calculated MW	60329

**Anti-Thrombomodulin / CD141 Antibody - Additional Information****Gene ID** 7056**Other Names**

AHUS6; BDCA3; CD141; Fetomodulin; Thbd; THPH12; THRM; Thrombomodulin (TM)

**Format**

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA &amp; 0.05% azide. Also available WITHOUT BSA &amp; azide at 1.0mg/ml.

**Storage**

Store at 2 to 8°C. Antibody is stable for 24 months.

**Precautions**

Anti-Thrombomodulin / CD141 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Anti-Thrombomodulin / CD141 Antibody - Protein Information****Name** THBD**Synonyms** THRM**Function**Endothelial cell receptor that plays a critical role in regulating several physiological processes including hemostasis, coagulation, fibrinolysis, inflammation, and angiogenesis (PubMed: [10761923](http://www.uniprot.org/citations/10761923)). Acts as a cofactor for thrombin activation of protein C/PROC on the surface of vascular endothelial cells leading to initiation of the activated protein C anticoagulant pathway (PubMed: [29323190](http://www.uniprot.org/citations/29323190), PubMed: [33836597](http://www.uniprot.org/citations/33836597), PubMed: [9395524](http://www.uniprot.org/citations/9395524)). Also

accelerates the activation of the plasma carboxypeptidase B2/CPB2, which catalyzes removal of C-terminal basic amino acids from its substrates including kinins or anaphylatoxins leading to fibrinolysis inhibition (PubMed:<a href="http://www.uniprot.org/citations/26663133" target="\_blank">26663133</a>). Plays critical protective roles in changing the cleavage specificity of protease-activated receptor 1/PAR1, inhibiting endothelial cell permeability and inflammation (By similarity). Suppresses inflammation distinctly from its anticoagulant cofactor activity by sequestering HMGB1 thereby preventing it from engaging cellular receptors such as RAGE and contributing to the inflammatory response (PubMed:<a href="http://www.uniprot.org/citations/15841214" target="\_blank">15841214</a>).

**Cellular Location**

Membrane; Single-pass type I membrane protein.

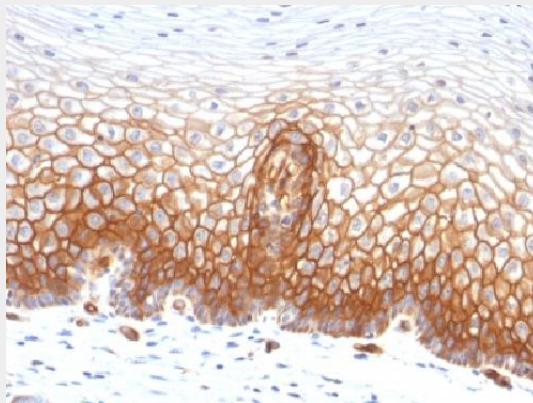
**Tissue Location**

Endothelial cells are unique in synthesizing thrombomodulin

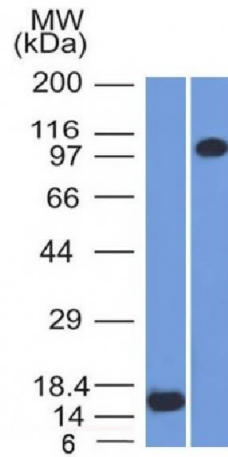
**Anti-Thrombomodulin / CD141 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

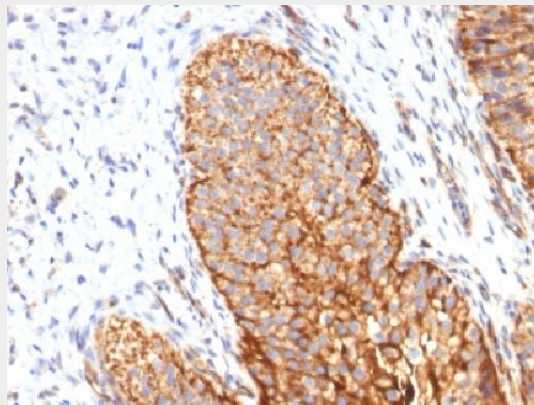
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-Thrombomodulin / CD141 Antibody - Images**

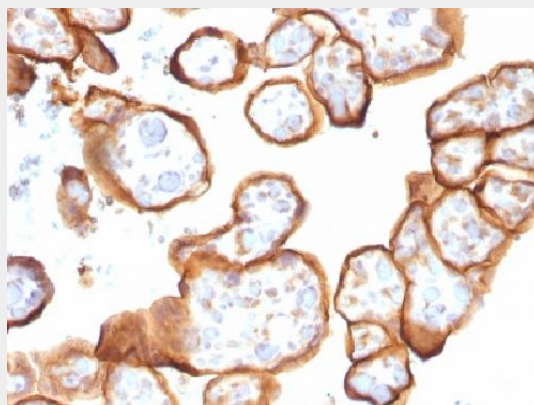
Formalin-fixed, paraffin-embedded human Cervical Carcinoma stained with Thrombomodulin/CD141 Monoclonal Antibody (THBD/1591).



Western Blot Analysis (A) Recombinant Protein (B) THP1 Cell lysate Using Thrombomodulin/CD141 Monoclonal Antibody (THBD/1591).



Formalin-fixed, paraffin-embedded human Bladder Carcinoma stained with Thrombomodulin Monoclonal/CD141 Antibody (THBD/1591).



Formalin-fixed, paraffin-embedded human Placenta stained with Thrombomodulin/CD141 Monoclonal Antibody (THBD/1591).

### **Anti-Thrombomodulin / CD141 Antibody - Background**

It recognizes a protein of 75kDa, identified as Thrombomodulin. Thrombomodulin is a transmembrane glycoprotein with natural anticoagulant properties. It is normally expressed by a restricted number of cells, such as endothelial and mesothelial cells. In addition, synovial lining and

syncytio-trophoblasts of placenta also express thrombomodulin. This protein is present in almost all of benign vascular tumors and majority of malignant vascular tumors (Kaposi s sarcoma, angiosarcoma, and epithelioid hemangioendothelioma). Hence, anti-thrombomodulin serves as a sensitive marker for lymphatic endothelial cells and their tumors. Recently, thrombomodulin antibody has been used for mesothelial cells and malignant mesotheliomas.