10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

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

Specification

Anti-Thrombomodulin / CD141 Antibody - Product Information

Application	**,1,14,3,4,10,**
Primary Accession	P07204
Other Accession	2030
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 & 0.05% azide. Also available WITHOUT BSA & 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). 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, PubMed:33836597, PubMed: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:26663133). 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:15841214).

Cellular Location
Membrane; Single-pass type I membrane protein.

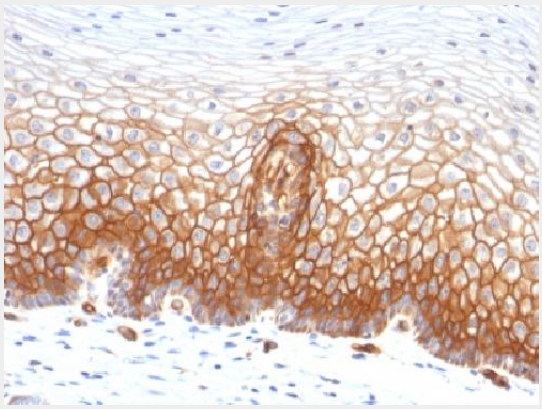
Tissue Location
Endothelial cells are unique in synthesizing thrombomodulin

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 Cytomety
- Cell Culture

Anti-Thrombomodulin / CD141 Antibody - Images



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

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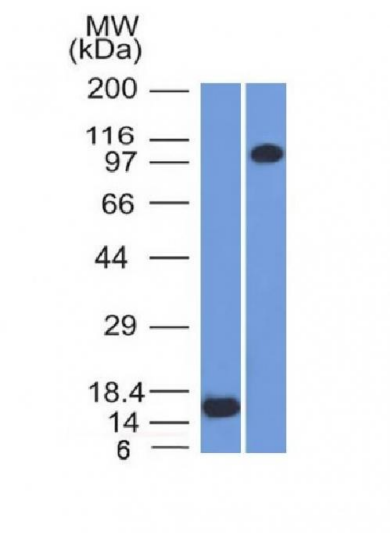
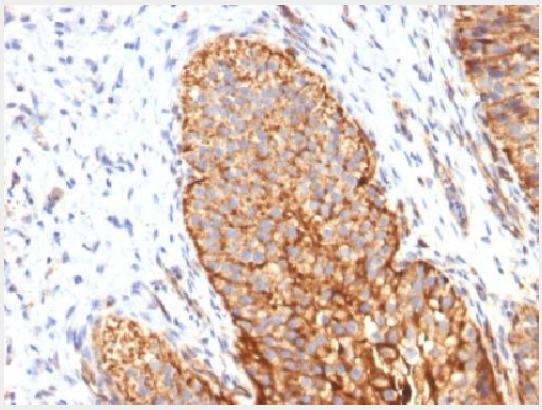
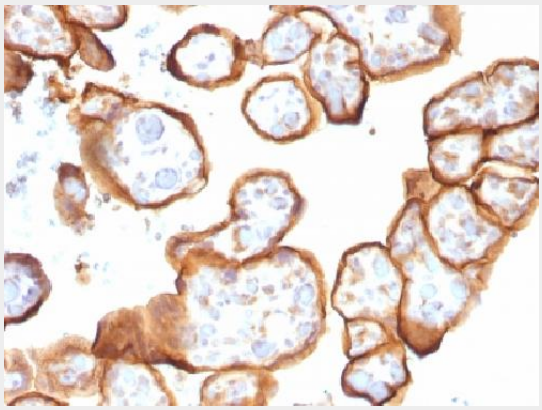


Western Blot Analysis (A) Recombinant Protein (B) THP1 Cell lysate Using Thrombomodulin/CD141 Monoclonal Antibody (THBD/1591).



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.