10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Thrombomodulin Antibody

Rabbit mAb
Catalog # AP90322

Product Information

Application	WB, IHC, IF, ICC, IP, IHF
Primary Accession	P07204
Reactivity	Human
Clonality	Monoclonal
Other Names	CD141; Fetomodulin; THBD; THRM; thrombomodulin; TM;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	60329

Additional Information

Dilution	WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Thrombomodulin
Description	Thrombomodulin (TM), also called CD141, is a type I membrane receptor that is specific to endothelial cells. TM has a cysteine-rich extracellular domain with six EGF-like regions. It forms a complex with Thrombin, which activates Protein C to generate activated Protein C (APC), an anticoagulant enzyme. APC together with Protein S inhibits coagulation by inactivating Factors Va and VIIIa. Deletion of the TM gene results in embryonic lethality in mice.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

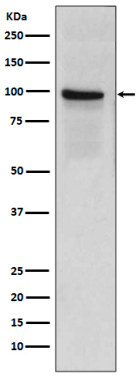
Name	THBD
Synonyms	THRM
Function	Endothelial cell receptor that plays a critical role in regulating several physiological processes including hemostasis, coagulation, fibrinolysis, inflammation, and angiogenesis (PubMed:10761923). Acts as a cofactor for thrombin activation of protein C/PROC on the surface 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

Images



Western blot analysis of Thrombomodulin expression in human placenta lysate.

Image not found : 202311/AP90322-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human bladder, using Thrombomodulin Antibody.