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Thrombomodulin Rabbit mAb

Catalog # AP74839

Product Information

Application	WB, IHC-P, FC, IP
Primary Accession	P07204
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	60329

Additional Information

Gene ID	7056
Other Names	THBD
Dilution	WB~~1:1000-1:5000 IHC-P~~N/A FC~~1:20-1:50 IP~~1:10-1:100
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

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).

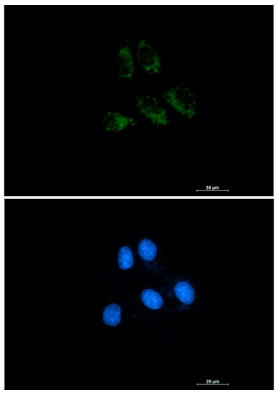
Cellular Location Membrane; Single-pass type I membrane protein.

Tissue Location Endothelial cells are unique in synthesizing thrombomodulin

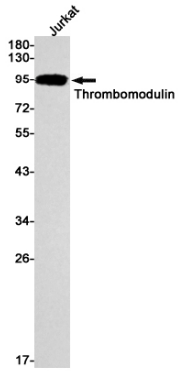
Background

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.

Images



Immunocytochemistry analysis of Thrombomodulin (green) in A549 using Thrombomodulin antibody,and DAPI(blue).



Western blot analysis of Thrombomodulin in Jurkat lysates using Thrombomodulin antibody.