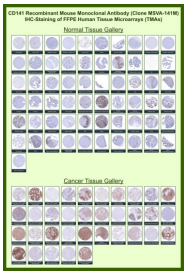
THBD Antibody for IHC / Thrombomodulin Tissue Microarray Antibody [clone MSVA-141M] (V6120)

Catalog No.	Formulation	Size
V6120-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6120-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant | MOUSE MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	MSVA-141M
UniProt	P07204
Localization	Membrane
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This THBD Antibody for IHC is available for research use only.



THBD Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of Thrombomodulin / THBD in formalin-fixed paraffin-embedded human normal and cancer tissue microarrays using mouse monoclonal antibody clone MSVA-141M. Tissue microarray (TMA) staining with HRP-DAB brown chromogen demonstrates membranous localization in vascular endothelial cells, highlighting capillaries and blood vessel linings across diverse organs, while most non-endothelial cell populations remain largely negative. Within tumor tissue microarrays, staining highlights tumor-associated vasculature with variable endothelial expression across different malignancies. Evaluation across large TMA panels enables direct comparison of THBD expression across diverse tissue types under standardized conditions. The observed staining patterns align with reported Thrombomodulin expression profiles in the Human Protein Atlas and support its use as a marker of vascular endothelium and tumor-associated angiogenesis.

Description

Thrombomodulin (THBD) is a membrane glycoprotein expressed predominantly on vascular endothelial cells where it

functions as a key regulator of coagulation and vascular homeostasis. This endothelial receptor, also widely known as CD141, plays a central role in controlling thrombin activity and maintaining vascular integrity. THBD Antibody for IHC is widely used in immunohistochemistry to visualize endothelial cells and vascular structures in formalin-fixed paraffin-embedded tissues, making it an important reagent for studying vascular biology, endothelial differentiation, and tumor-associated vasculature. In histopathology and research laboratories, thrombomodulin immunohistochemistry staining is frequently applied to evaluate endothelial cell distribution and vascular patterns in normal tissues as well as in tumor specimens.

THBD antibody, also referred to as Thrombomodulin antibody and CD141 antibody in the literature, recognizes an endothelial surface protein that acts as a cofactor for thrombin in the protein C anticoagulant pathway. Binding of thrombin to thrombomodulin converts thrombin from a procoagulant enzyme into an activator of protein C, which then inhibits further coagulation signaling. Through this mechanism thrombomodulin contributes to vascular stability and anti-inflammatory signaling within the endothelium. Because of its strong endothelial cell localization, thrombomodulin antibody staining by immunohistochemistry is widely used as a vascular endothelial marker in tissue sections and is frequently included in antibody panels designed to evaluate endothelial lineage or vascular differentiation in pathology specimens.

In immunohistochemistry studies, THBD staining typically appears along the luminal membranes of endothelial cells lining blood vessels across a wide range of organs. This vascular staining pattern allows investigators to clearly visualize endothelial networks within tissues and tumors. Thrombomodulin immunohistochemistry can highlight vascular architecture in normal tissues and may also be detected in selected epithelial tissues such as mesothelium or specialized glandular epithelium. In cancer pathology, THBD IHC staining is often used to examine tumor-associated vasculature and endothelial cell organization within the tumor microenvironment. These staining characteristics make thrombomodulin a valuable endothelial marker for IHC analysis of vascular structures in both research and diagnostic investigations.

Large-scale human tissue microarray (TMA) analysis has become an important strategy for evaluating endothelial markers across many tissues simultaneously. A THBD Antibody for IHC is particularly useful in tissue microarray experiments because endothelial cells are present in nearly all organs represented within TMA panels. In normal tissue microarray collections, thrombomodulin immunohistochemistry staining consistently identifies vascular endothelial cells across diverse tissues. In cancer tissue microarray panels, THBD staining can reveal tumor-associated blood vessels or identify tumors that retain thrombomodulin expression. These large human TMA datasets enable investigators to compare endothelial marker expression across dozens of normal tissues and cancer types within a single experiment while confirming the reproducibility of immunohistochemistry staining patterns.

Recombinant monoclonal antibodies provide consistent performance for immunohistochemical detection of thrombomodulin in FFPE specimens. Clone MSVA-141M is a recombinant mouse monoclonal antibody designed to recognize THBD expression in research applications. When used in immunohistochemistry experiments, a THBD Antibody for IHC supports analysis of endothelial cell distribution, vascular architecture, and tumor-associated vascular structures in both normal tissue microarray studies and large cancer tissue microarray datasets.

This antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Application Notes

1. Optimal dilution of the THBD Antibody for IHC / Thrombomodulin Tissue Microarray Antibody should be determined by the researcher.

2. This THBD/Thrombomodulin antibody is recombinantly produced by expression in CHO cells.

3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to

the manufacturer's directions.

Immunogen

A recombinant fragment (around amino acids 69-194) of human Thrombomodulin (CD141) protein (exact sequence is proprietary) was used as the immunogen for the THBD Antibody for IHC.

Storage

THBD/Thrombomodulin antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

CD141 antibody, Thrombomodulin antibody, BDCA3 antibody, Fetomodulin antibody, TM antibody

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