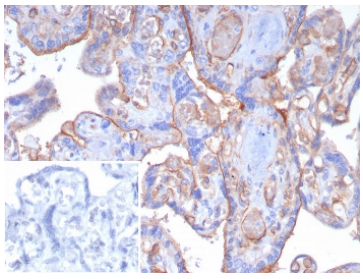
CD141 Antibody / Thrombomodulin [clone THBD/8188R] (V4815)

Catalog No.	Formulation	Size
V4815-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4815-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4815SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	THBD/8188R
Purity	Protein A/G affinity
UniProt	P07204
Localization	Cell Surface, Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This CD141 antibody is available for research use only.



CD141 Antibody. Immunohistochemistry analysis of Thrombomodulin / CD141 expression in human placenta using clone THBD/8188R. FFPE placental tissue shows membranous HRP-DAB brown staining in trophoblastic cells and vascular endothelial structures. The inset shows the secondary antibody negative control in which PBS was used in place of the primary antibody. Antigen retrieval was performed by boiling sections in pH 9 10mM Tris buffer with 1mM EDTA for 20 minutes followed by cooling prior to staining.

Description

CD141, also known as thrombomodulin, is a vascular endothelial membrane glycoprotein expressed on the luminal surface of endothelial cells lining blood vessels throughout the body. CD141 Antibody is widely used to detect this

endothelial receptor in studies of vascular biology where immunostaining reveals strong localization along endothelial cell membranes. Because CD141 is consistently expressed on vascular endothelial cells forming blood vessel walls, antibodies targeting this protein provide a reliable method for visualizing vascular structures in normal tissues and in tumor-associated vasculature.

CD141 antibody, also referred to as thrombomodulin antibody in the literature, recognizes a transmembrane receptor that regulates thrombin activity within the anticoagulant signaling system of vascular endothelium. When thrombin binds to thrombomodulin on the endothelial cell surface, its enzymatic activity shifts toward activation of the protein C anticoagulant pathway. This receptor-mediated signaling mechanism plays an important role in maintaining vascular homeostasis and regulating thrombin activity within blood vessels. Because this receptor is concentrated along endothelial cell membranes, detection of CD141 allows investigators to clearly identify vascular endothelial cells in histological and cellular studies.

In tissue sections, CD141 staining typically appears as membranous labeling of endothelial cells lining arteries, veins, and capillaries across many organs. This vascular staining pattern allows researchers to visualize blood vessel networks and examine endothelial organization within complex tissue environments. Endothelial cells highlighted by CD141 antibody define the vascular framework that supports tissue perfusion and cellular oxygen supply. Visualization of these vascular structures is therefore widely used in studies examining vascular organization, endothelial differentiation, and blood vessel biology.

In tumor biology research, CD141 expression can also highlight vascular structures that supply blood to malignant tissues. Tumors frequently develop complex vascular networks that support tumor growth and metabolic demands. Detection of CD141 within these vascular structures allows investigators to examine blood vessel distribution and vascular organization within tumor microenvironments. Because endothelial cells form the inner lining of these vessels, antibodies recognizing CD141 provide an effective approach for studying vascular architecture associated with tumor progression.

Clone THBD/8188R is a recombinant rabbit monoclonal antibody designed to recognize CD141 expression in research applications. Recombinant monoclonal antibodies provide consistent performance and specificity for detection of endothelial receptors. When applied in experimental studies, CD141 Antibody enables investigators to examine thrombomodulin expression and analyze vascular structures formed by endothelial cells in both normal tissues and tumor-associated vasculature.

Application Notes

Optimal dilution of the CD141 antibody should be determined by the researcher.

Immunogen

Recombinant full-length human protein was used as the immunogen for the CD141 antibody.

Storage

Aliquot the CD141 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Thrombomodulin antibody, THBD antibody, Endothelial thrombomodulin antibody, Vascular thrombomodulin antibody