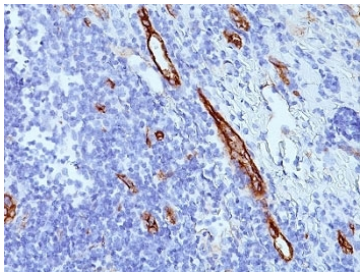
von Willebrand Factor Antibody / Endothelial Secretion Marker Antibody [clone SPM577] (V9099)

Catalog No.	Formulation	Size
V9099-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V9099-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V9099SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	SPM577
Purity	Protein G affinity chromatography
UniProt	P04275
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This anti-von Willebrand Factor antibody is available for research use only.



von Willebrand Factor Antibody / Endothelial Secretion Marker Antibody. Immunohistochemistry analysis of human tonsil tissue shows HRP-DAB brown staining of endothelial cells lining vascular channels within lymphoid tissue. The staining highlights vessel-associated endothelium with both luminal and cytoplasmic signal, consistent with VWF localization in storage granules and its release along the vascular surface. This pattern reflects endothelial secretion activity, with signal distribution indicating intracellular storage and extracellular deposition along vessel linings. Clone SPM577 enables visualization of vascular structures together with secretion-associated VWF localization.

Description

Von Willebrand factor (VWF) is a secreted glycoprotein encoded by the VWF gene and synthesized primarily by vascular endothelial cells and megakaryocytes. von Willebrand Factor Antibody / Endothelial Secretion Marker Antibody recognizes a protein that is actively stored and released by endothelial cells, making it highly relevant for studying regulated secretion in vascular biology. VWF antibody, also referred to as von Willebrand factor antibody or factor VIII-related antigen antibody, is widely used in research examining endothelial activation, stimulus-dependent release, and the dynamic secretory behavior of vascular lining cells.

Endothelial cells maintain vascular homeostasis not only through structural support but also through tightly controlled secretion of bioactive molecules. VWF is one of the most prominent proteins stored within endothelial Weibel-Palade bodies and is rapidly released in response to physiological stimuli such as inflammation, mechanical stress, and vascular injury. This regulated exocytosis allows endothelial cells to transition from a resting to an activated state, linking intracellular storage to immediate functional output at the vessel surface. von Willebrand Factor Antibody is therefore particularly useful for detecting changes associated with endothelial activation and secretory response.

Upon release, VWF is deposited along the luminal surface of blood vessels or secreted into the circulation, where it contributes to platelet recruitment and hemostatic regulation. This transition from intracellular storage to extracellular function reflects a key aspect of endothelial responsiveness. Detection of VWF in these contexts can indicate active or recent secretion events, providing insight into vascular activation status. In tissue and cell-based systems, shifts in VWF localization from discrete intracellular granules to more diffuse or surface-associated patterns can reflect underlying changes in endothelial behavior.

In experimental models, endothelial secretion is often associated with inflammation, thrombosis, and vascular injury, all of which involve rapid mobilization of stored mediators. VWF serves as a direct readout of this process because its release is tightly coupled to endothelial activation pathways. Monitoring VWF distribution therefore allows investigators to assess secretory dynamics, including granule mobilization, exocytosis, and extracellular deposition. This makes von Willebrand Factor Antibody especially valuable for studies focused on vascular signaling, endothelial responsiveness, and mediator release.

VWF secretion also integrates with broader biological processes by linking endothelial activation to platelet adhesion and coagulation factor support. As a result, changes in VWF release can reflect both local vascular responses and systemic hemostatic activity. This dual role enhances its utility as a marker of functional endothelial output rather than static cellular identity alone.

von Willebrand Factor Antibody / Endothelial Secretion Marker Antibody is particularly well suited for investigations centered on regulated endothelial release and vascular response mechanisms. By highlighting a protein that transitions from intracellular storage to extracellular function, it enables detailed analysis of endothelial activation, secretory dynamics, and the biological consequences of mediator release within vascular systems.

Application Notes

The optimal dilution of the von Willebrand Factor Antibody / Endothelial Secretion Marker Antibody for each application should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 minutes.

Immunogen

A recombinant human protein fragment (within amino acids 845-949) was used as the immunogen for this von Willebrand

Factor Antibody / Endothelial Secretion Marker Antibody.

Storage

Store the anti-von Willebrand Factor antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

VWF endothelial secretion antibody, von Willebrand factor secretory response antibody, endothelial release marker antibody, VWF regulated secretion antibody, vascular secretory protein antibody