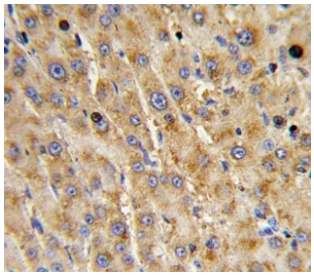
ADAMTS13 Polyclonal Antibody / von Willebrand Factor Cleaving Protease Antibody (F50404)

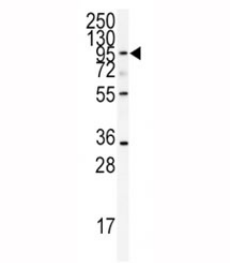
Catalog No.	Formulation	Size
F50404-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F50404-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	Q76LX8
Localization	Cytoplasmic
Applications	Western blot: 1:1000 IHC (Paraffin): 1:10-1:50
Limitations	This ADAMTS13 Polyclonal Antibody / von Willebrand Factor Cleaving Protease Antibody is available for research use only.



ADAMTS13 Polyclonal Antibody by IHC in human hepatocarcinoma. Immunohistochemistry of FFPE human hepatocarcinoma tissue using ADAMTS13 Polyclonal Antibody. Brown DAB immunoreactivity is visible in tumor cells, with predominantly cytoplasmic staining and variable intensity across the tissue. Hematoxylin counterstaining highlights blue-purple nuclei and surrounding tissue architecture. This von Willebrand Factor Cleaving Protease Antibody detects ADAMTS13, a secreted metalloprotease involved in von Willebrand factor processing and regulation of platelet adhesion.



ADAMTS13 Polyclonal Antibody by WB in CEM cells. Western blot analysis of human CEM cell lysate using ADAMTS13 Polyclonal Antibody. An immunoreactive band is detected at approximately 95 kDa, below the calculated molecular weight of full-length ADAMTS13 (~154 kDa). ADAMTS13 is a multidomain protein that can undergo proteolytic processing, although the identity of this lower-molecular-weight species has not been established. This von Willebrand Factor Cleaving Protease Antibody demonstrates immunoreactivity under the tested conditions.

Description

ADAMTS13 Polyclonal Antibody recognizes ADAMTS13, a secreted zinc-dependent metalloprotease that regulates von Willebrand factor (VWF) multimer size and platelet adhesion. Also known as von Willebrand factor cleaving protease (VWFCP), ADAMTS13 belongs to the ADAMTS family of extracellular metalloproteinases. Its principal function is to cleave unusually large VWF multimers, limiting excessive platelet aggregation and preventing inappropriate microvascular thrombus formation. This enzymatic activity is essential for maintaining normal hemostasis and vascular homeostasis.

The human ADAMTS13 gene is located on chromosome 9q34 and encodes a protein of approximately 1427 amino acids. ADAMTS13 contains a metalloproteinase domain, disintegrin-like domain, thrombospondin type 1 repeats, cysteine-rich region, spacer domain, and two CUB domains. These structural elements contribute to enzymatic activity, substrate recognition, and interactions with VWF. The protein is extensively glycosylated, which influences its apparent molecular weight, secretion, and stability. ADAMTS13 is produced primarily in the liver and circulates in plasma as an active protease.

ADAMTS13 cleaves VWF at the Tyr1605-Met1606 bond within its A2 domain. Under elevated vascular shear stress, VWF undergoes conformational changes that expose this cleavage site, allowing ADAMTS13 to regulate multimer size. This process limits platelet adhesion to the vascular endothelium and helps maintain balanced clot formation. The von Willebrand Factor Cleaving Protease Antibody is relevant to research investigating these mechanisms of coagulation, endothelial function, and vascular regulation.

Severe ADAMTS13 deficiency is associated with thrombotic thrombocytopenic purpura (TTP), a disorder characterized by widespread microvascular platelet thrombi. Acquired TTP commonly results from inhibitory autoantibodies against ADAMTS13, while congenital TTP arises from pathogenic variants in the ADAMTS13 gene. Reduced protease activity permits accumulation of ultra-large VWF multimers, increasing platelet aggregation and microvascular obstruction. ADAMTS13 has also been investigated in ischemic stroke, systemic inflammation, and other disorders involving abnormal thrombosis.

Research into ADAMTS13 focuses on the balance between VWF processing, platelet function, and vascular integrity. Its activity influences thrombotic risk and contributes to the regulation of normal blood flow. NSJ Bioreagents offers antibodies targeting ADAMTS13 for research into hemostasis and cardiovascular biology. An ADAMTS13 Polyclonal Antibody provides a tool for examining VWF cleaving protease expression and its involvement in coagulation, thrombotic disorders, and vascular homeostasis.

For an alternative antibody targeting the same metalloprotease, see our ADAMTS13 Antibody.

Application Notes

Titration of the ADAMTS13 Polyclonal Antibody / von Willebrand Factor Cleaving Protease Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 829-858 from the human protein was used as the immunogen for this ADAMTS13 Polyclonal Antibody.

Storage

Aliquot the ADAMTS13 Polyclonal Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

VWF Cleaving Protease antibody, VWFCP antibody, von Willebrand Factor Protease antibody, ADAMTS-13 antibody, ADAM-TS13 antibody, ADAMTS13 Metalloprotease antibody

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