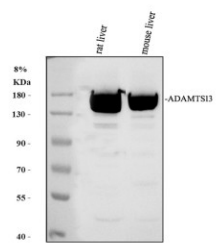
ADAMTS13 Antibody / VWF Cleaving Protease Polyclonal Antibody (R32496)

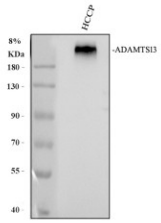
Catalog No.	Formulation	Size
R32496	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q76LX8
Localization	Cytoplasmic
Applications	Western blot: 0.5-1ug/ml ELISA: 0.5-1ug/ml (human protein tested); request BSA-free format for coating
Limitations	This ADAMTS13 Antibody / VWF Cleaving Protease Polyclonal Antibody is available for research use only.



ADAMTS13 Antibody by WB in rat and mouse liver tissue. Western blot analysis of rat (lane 1) and mouse (lane 2) liver lysates using ADAMTS13 Antibody at 0.5 ug/ml. Samples were separated by 8% SDS-PAGE under reducing conditions, with 30 ug of protein loaded per lane. Immunoreactive bands are detected at approximately 154 kDa, consistent with the predicted molecular weight of ADAMTS13. This VWF Cleaving Protease Polyclonal Antibody recognizes the metalloprotease involved in von Willebrand factor processing and regulation of platelet adhesion.



ADAMTS13 Antibody by WB in human liver-associated tissue. Western blot analysis of human hepatocellular carcinoma paracancerous tissue lysate using ADAMTS13 Antibody at 0.5 ug/ml. A prominent immunoreactive band appears at approximately 200 kDa, above the calculated molecular weight of 154 kDa. Published studies report ADAMTS13 migration near 190â€“210 kDa, with extensive glycosylation contributing to its higher apparent molecular weight. The blot shows a relatively discrete principal band with minimal additional background. Samples were separated by 8% SDS-PAGE under reducing conditions, with 30 ug loaded per lane. This VWF Cleaving Protease Polyclonal Antibody recognizes the metalloprotease responsible for regulating von Willebrand factor multimer size.

Description

ADAMTS13 Antibody recognizes ADAMTS13, a secreted zinc-dependent metalloprotease responsible for regulating von Willebrand factor (VWF) multimer size in the bloodstream. 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, preventing excessive platelet adhesion and inappropriate microvascular thrombus formation. This 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. Its multidomain structure includes a metalloproteinase domain, disintegrin-like domain, thrombospondin type 1 repeats, a cysteine-rich region, a spacer domain, and two CUB domains. These regions contribute to substrate recognition, enzymatic activity, and interactions with VWF. ADAMTS13 is extensively glycosylated, resulting in an apparent molecular weight that can exceed its calculated polypeptide mass. The protein 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 conditions of increased vascular shear stress, VWF undergoes conformational changes that expose this cleavage site. Proteolysis by ADAMTS13 limits the accumulation of highly adhesive VWF multimers and helps regulate platelet recruitment to sites of vascular injury. The VWF Cleaving Protease Polyclonal Antibody is relevant to research investigating these mechanisms of blood coagulation, endothelial function, and thrombus formation.

Severe ADAMTS13 deficiency is closely associated with thrombotic thrombocytopenic purpura (TTP), a potentially life-threatening disorder characterized by widespread microvascular platelet thrombi. Acquired TTP frequently involves autoantibodies that inhibit ADAMTS13 activity or promote its clearance, while congenital TTP results from pathogenic variants in the ADAMTS13 gene. Reduced enzyme activity permits the accumulation of ultra-large VWF multimers, increasing platelet aggregation and microvascular obstruction.

ADAMTS13 has also attracted research interest in ischemic stroke, cardiovascular disease, systemic inflammation, and disorders involving abnormal coagulation. Its relationship with VWF is particularly important because the balance between these proteins influences thrombotic risk and vascular integrity. NSJ Bioreagents offers antibodies targeting ADAMTS13 for research into hemostatic regulation and vascular biology. An ADAMTS13 Antibody provides a tool for investigating VWF cleaving protease expression and its involvement in platelet adhesion, thrombotic disorders, and cardiovascular homeostasis.

Explore our Cardiovascular Antibodies collection for additional antibodies targeting blood coagulation, platelet function, vascular homeostasis, and proteins involved in thrombotic disorders.

Application Notes

Differences in protocols and secondary/substrate sensitivity may require the ADAMTS13 Antibody / VWF Cleaving Protease Polyclonal Antibody to be titrated for optimal performance.

Immunogen

Amino acids A299-R488 from the human protein were used as the immunogen for the ADAMTS13 antibody.

Storage

After reconstitution, the ADAMTS13 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

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

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