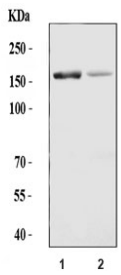
VWFCP Antibody / ADAMTS13 Rabbit Polyclonal Antibody (RQ7055)

Catalog No.	Formulation	Size
RQ7055	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 purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q76LX8
Applications	Western blot: 0.5-1 ug/ml Direct ELISA: 0.1-0.5ug/ml
Limitations	This VWFCP Antibody / ADAMTS13 Rabbit Polyclonal Antibody is available for research use only.



VWFCP Antibody by WB in rat and mouse liver tissue. Western blot analysis of rat (lane 1) and mouse (lane 2) liver lysates using VWFCP Antibody. Immunoreactive bands are detected near the expected molecular weight of ADAMTS13, consistent with recognition of von Willebrand factor cleaving protease in both species. This ADAMTS13 Rabbit Polyclonal Antibody detects a metalloprotease involved in regulating VWF multimer size and platelet adhesion.

Description

VWFCP Antibody recognizes von Willebrand factor cleaving protease (VWFCP), a secreted zinc-dependent metalloprotease encoded by the ADAMTS13 gene. This enzyme regulates the size and activity of circulating von Willebrand factor (VWF) multimers, helping maintain balanced platelet adhesion and blood coagulation. ADAMTS13 belongs to the ADAMTS family of extracellular metalloproteinases and is essential for preventing excessive accumulation of highly adhesive VWF multimers. Its activity contributes to normal hemostasis and protects against inappropriate

microvascular thrombus formation.

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 regions contribute to substrate recognition, proteolytic activity, and interactions with VWF. The protein undergoes extensive glycosylation, which influences its secretion, stability, and apparent molecular weight. ADAMTS13 is produced primarily in the liver and circulates in plasma as an active enzyme.

ADAMTS13 cleaves VWF at the Tyr1605-Met1606 bond within its A2 domain. Under increased vascular shear stress, VWF unfolds to expose this cleavage site, allowing ADAMTS13 to reduce multimer size and regulate platelet recruitment. This process limits excessive platelet aggregation while preserving normal clot formation at sites of vascular injury. The ADAMTS13 Rabbit Polyclonal Antibody is relevant to research investigating coagulation pathways, endothelial function, and vascular homeostasis.

Severe ADAMTS13 deficiency is associated with thrombotic thrombocytopenic purpura (TTP), a potentially life-threatening disorder characterized by microvascular platelet thrombi. Acquired TTP frequently results from inhibitory autoantibodies against ADAMTS13, while congenital TTP is caused by pathogenic variants in the ADAMTS13 gene. Reduced enzyme 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 involving ADAMTS13 focuses on the relationship between VWF processing, platelet function, and vascular integrity. The balance between ADAMTS13 activity and VWF multimer distribution influences thrombotic risk and cardiovascular health. NSJ Bioreagents offers antibodies targeting this protease for studies of hemostatic regulation. A VWFCP Antibody provides a research tool for examining ADAMTS13 expression and its involvement in blood coagulation, thrombotic disorders, and vascular homeostasis.

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

Application Notes

Optimal dilution of the VWFCP Antibody / ADAMTS13 Rabbit Polyclonal Antibody should be determined by the researcher.

Immunogen

E. coli-derived recombinant human protein (amino acids D298-T1427) was used as the immunogen for the ADAMTS13 / VWFCP antibody.

Storage

After reconstitution, the ADAMTS13 / VWFCP 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

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

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