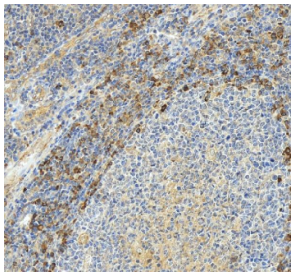
Glycoprotein 9 Antibody / Gp9 / CD42a (FY12598)

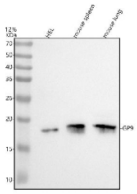
Catalog No.	Formulation	Size
FY12598	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	P14770
Localization	Cell membrane, cytoplasm, nucleus
Applications	Western Blot: 0.25-0.5ug/ml Immunohistochemistry: 2-5ug/ml
Limitations	This Glycoprotein 9 antibody is available for research use only.



Immunohistochemical staining of CD42a/GP9 using anti-CD42a/GP9 antibody. CD42a/GP9 was detected in a paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD42a/GP9 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



Western blot analysis of CD42a/GP9 using anti-Glycoprotein 9 antibody. Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human HEL whole cell lysates, Lane 2: mouse spleen tissue lysates, Lane 3: mouse lung tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Glycoprotein 9 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. A specific band was detected for CD42a/GP9 at approximately 19 kDa. The expected molecular weight of CD42a/GP9 is at 19 kDa.

Description

Glycoprotein 9 antibody detects Platelet glycoprotein IX, a membrane glycoprotein that forms part of the GPIb-IX-V complex essential for platelet adhesion and thrombus formation. Glycoprotein 9 functions as a structural subunit that stabilizes the GPIbalpha receptor, enabling platelet interaction with von Willebrand factor under high shear conditions. The Glycoprotein 9 antibody is widely used in hematology and cardiovascular research to study platelet function, coagulation, and bleeding disorders.

The protein is encoded by the GP9 gene on human chromosome 3q21.3. Glycoprotein 9 is approximately 177 amino acids long and contains a single leucine-rich repeat flanked by cysteine-rich regions, which maintain receptor conformation and complex assembly. It is expressed exclusively on platelet membranes and megakaryocytes, where it associates non-covalently with GPIbalpha and GPIbbeta to form the functional receptor complex for von Willebrand factor binding.

The Glycoprotein 9 antibody detects a 25 kilodalton band by western blot and shows strong membrane staining in platelets. The GPIb-IX-V complex mediates platelet tethering to exposed subendothelial matrix at sites of vascular injury, initiating platelet activation and aggregation. Defects or mutations in Glycoprotein 9 lead to Bernard-Soulier syndrome, characterized by thrombocytopenia, giant platelets, and impaired adhesion.

Beyond hemostasis, the GPIb-IX-V complex participates in inflammatory and immune signaling. Platelet Glycoprotein 9 contributes to leukocyte recruitment, vascular permeability, and thromboinflammatory responses. Overexpression or dysregulation has been associated with thrombosis and cardiovascular disease, making it an important target for antithrombotic therapy.

Because of its role in platelet adhesion and vascular integrity, Glycoprotein 9 is a critical biomarker for platelet-related disorders. NSJ Bioreagents provides a validated Glycoprotein 9 antibody optimized for its applications, supporting research into hemostasis, thrombosis, and vascular inflammation.

Application Notes

Optimal dilution of the Glycoprotein 9 antibody should be determined by the researcher.

Immunogen

A synthetic peptide corresponding to a sequence in the middle region of human CD42a/GP9 was used as the immunogen for the Glycoprotein 9 antibody.

Storage

After reconstitution, the Glycoprotein 9 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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