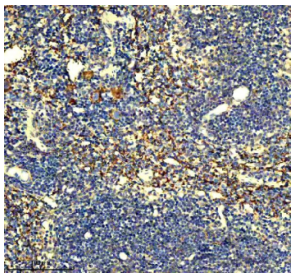
# Gp9 Antibody / Glycoprotein 9 / CD42a (FY12370)

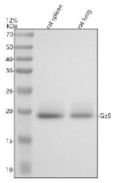
| Catalog No. | Formulation | Size |
|---|---|---|
| FY12370 | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml | 100 ug |

**Bulk quote request**

| | |
|---|---|
| **Availability** | 1-2 days |
| **Species Reactivity** | Mouse, Rat |
| **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** | O88186 |
| **Applications** | Western Blot: 0.25-0.5ug/ml<br>Immunohistochemistry: 2-5ug/ml |
| **Limitations** | This Gp9 antibody is available for research use only. |



Immunohistochemical staining of Gp9 using anti-Gp9 antibody. Gp9 was detected in a paraffin-embedded section of mouse spleen 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-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 Gp9 using anti-Gp9 antibody. Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: rat spleen tissue lysates, Lane 2: rat 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-Gp9 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. The expected molecular weight of Gp9 is ~19 kDa.

## Description

The Gp9 antibody targets Platelet glycoprotein IX, a membrane glycoprotein encoded by the GP9 gene and an essential component of the platelet glycoprotein Ib-IX-V receptor complex. This complex mediates platelet adhesion to subendothelial von Willebrand factor (vWF) following vascular injury, initiating platelet activation and thrombus formation. Platelet glycoprotein IX, together with glycoproteins Ibalpha, Ibbeta, and V, forms the primary receptor responsible for platelet tethering under high shear conditions. The Gp9 antibody provides a vital tool for studying platelet adhesion mechanisms, receptor assembly, and bleeding disorders associated with GPIb-IX-V dysfunction.

Platelet glycoprotein IX is a small single-pass transmembrane protein that stabilizes the larger GPIbalpha subunit and ensures correct receptor complex formation. Mutations in the GP9 gene cause BernardÂ–Soulier syndrome, a rare autosomal recessive bleeding disorder characterized by macrothrombocytopenia and defective platelet adhesion. The Gp9 antibody is essential for diagnosing and researching this condition, as it allows detection of protein expression and complex assembly defects in patient samples and experimental models.

In normal hemostasis, GPIb-IX-V engagement with von Willebrand factor triggers intracellular signaling events that activate integrins and promote platelet aggregation. The Gp9 antibody supports studies that dissect these pathways, clarifying how alterations in complex composition affect receptor function. In addition to its hemostatic role, Platelet glycoprotein IX contributes to thrombo-inflammatory responses, vascular repair, and platelet-leukocyte interactions. Using the Gp9 antibody, researchers can quantify expression and localization on the platelet surface and explore its involvement in inflammation and cardiovascular disease.

The Gp9 antibody performs effectively in flow cytometry, western blotting, and immunofluorescence. It provides clear detection of Platelet glycoprotein IX in platelets, megakaryocytes, and hematopoietic progenitors. Studies employing this antibody help define the molecular architecture of the GPIb-IX-V complex and its contribution to platelet activation signaling. By facilitating these analyses, the Gp9 antibody aids both basic research and clinical evaluation of platelet receptor disorders.

NSJ Bioreagents provides the Gp9 antibody as a high-specificity, validated reagent for platelet biology and hemostasis research. It supports investigations into receptor complex assembly, thrombosis, and genetic platelet disorders. Through consistent detection and compatibility with multiple assay types, the Gp9 antibody helps advance understanding of platelet adhesion mechanisms and their significance in health and disease.

## Application Notes

Optimal dilution of the Gp9 antibody should be determined by the researcher.

## Immunogen

A synthetic peptide corresponding to a sequence in the middle region of mouse CD42a/GP9 was used as the immunogen for the Gp9 antibody.

## Storage

After reconstitution, the Gp9 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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