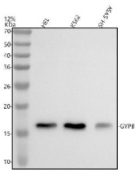
GYPB Antibody / Glycophorin B (FY12009)

Catalog No.	Formulation	Size
FY12009	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
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	P06028
Applications	Western Blot: 0.25-0.5ug/ml ELISA: 0.1-0.5ug/ml
Limitations	This GYPB antibody is available for research use only.



Western blot analysis of GYPB using anti-GYPB 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: human K562 whole cell lysates, Lane 3: human SH-SY5Y whole cell 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-GYPB 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 GYPB at approximately 17 kDa. The expected band size for GYPB is at 10 kDa but may be observed at higher molecular weights due to glycosylation.

Description

GYPB antibody detects Glycophorin B, encoded by the GYPB gene. Glycophorin B is a major sialoglycoprotein of the erythrocyte membrane that contributes to blood group antigen expression, membrane structure, and host-pathogen

interactions. GYPB antibody provides researchers with a specific reagent to study red blood cell biology, blood group systems, and disease processes involving erythrocyte surface proteins.

Glycophorin B is a single-pass transmembrane protein heavily glycosylated on its extracellular domain. Research using GYPB antibody has shown that it carries antigens of the MNS blood group system, including the S and s antigens. Variation in GYPB alleles results in polymorphism that defines clinically significant blood group phenotypes. These polymorphisms are essential for transfusion medicine and compatibility testing.

Studies with GYPB antibody have revealed that Glycophorin B contributes to erythrocyte membrane stability. By interacting with the cytoskeleton and forming complexes with other membrane proteins, it maintains cell shape and flexibility. Glycophorin B also provides a negatively charged surface that reduces red blood cell aggregation and contributes to circulation efficiency.

In infectious disease research, Glycophorin B is notable as a receptor for Plasmodium falciparum, the parasite responsible for malaria. Research using GYPB antibody has shown that parasite invasion efficiency depends on interactions with glycophorins, including Glycophorin B. Genetic variants of GYPB influence malaria susceptibility, making this protein highly relevant for host-pathogen interaction studies.

Dysregulation or mutation of GYPB can result in rare blood group phenotypes, which may cause challenges in transfusion compatibility. Studies with GYPB antibody have also suggested potential roles in erythroid development and signaling, although these functions remain less well defined compared to its structural and antigenic roles.

GYPB antibody is widely applied in flow cytometry, immunohistochemistry, and immunoblotting. Flow cytometry distinguishes blood group antigen expression on red cells, immunohistochemistry identifies surface expression patterns, and immunoblotting quantifies protein levels. These applications make GYPB antibody indispensable in transfusion medicine and infectious disease research.

By supplying validated GYPB antibody reagents, NSJ Bioreagents supports studies into erythrocyte biology, blood group systems, and host-pathogen interactions. Detection of Glycophorin B provides researchers with insight into how red cell surface proteins contribute to health and disease.

Application Notes

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

Immunogen

E.coli-derived human GYPB recombinant protein (Position: Q43-A91) was used as the immunogen for the GYPB antibody.

Storage

After reconstitution, the GYPB 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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