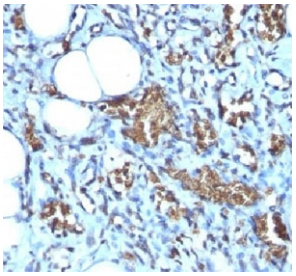
Glycophorin A Antibody / Erythroid Cell Marker [clone GYPA/280] (V2562)

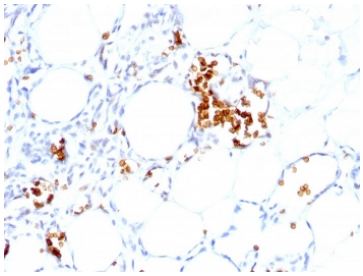
Catalog No.	Formulation	Size
V2562-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2562-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2562SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2562IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

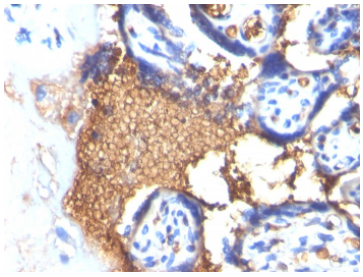
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	GYPA/280
Purity	Protein G affinity chromatography
UniProt	P02724
Localization	Cytoplasmic, membranous
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Western blot: 1-2ug/ml
Limitations	This Glycophorin A Antibody / Erythroid Cell Marker is available for research use only.



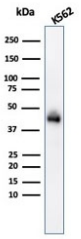
Glycophorin A Antibody in Human Angiosarcoma IHC. Immunohistochemistry testing of Glycophorin A Antibody / Erythroid Cell Marker, clone GYPA/280, in FFPE human angiosarcoma tissue. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9, 10 mM Tris with 1 mM EDTA for 10-20 min followed by cooling at RT for 20 min. Strong membranous and cytoplasmic immunoreactivity is observed in populations of cells associated with the vascular tumor tissue.



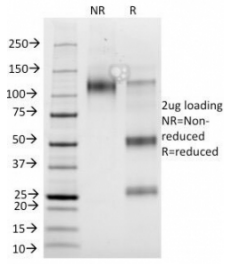
Glycophorin A Antibody in Human Angiosarcoma IHC. Immunohistochemistry testing of Glycophorin A Antibody / Erythroid Cell Marker, clone GYPA/280, in a second FFPE human angiosarcoma specimen. Following heat-induced epitope retrieval in pH 9 Tris/EDTA, strong focal immunoreactivity is observed in cells within vascular spaces, with surrounding tissue showing substantially less staining.



Glycophorin A Antibody in Human Placenta IHC. Immunohistochemistry testing of Glycophorin A Antibody / Erythroid Cell Marker, clone GYPA/280, in FFPE human placenta. Heat-induced epitope retrieval was performed in pH 9 Tris/EDTA. Strong membranous staining is observed in erythrocytes within placental vascular spaces, consistent with the erythroid expression of glycophorin A.



Glycophorin A Antibody in Human K562 Erythroleukemia Cells WB. Western blot testing of Glycophorin A Antibody / Erythroid Cell Marker, clone GYPA/280, in human K562 erythroleukemia cell lysate. A prominent band is observed at approximately 38-40 kDa. The elevated apparent molecular weight relative to the GYPA polypeptide backbone is consistent with the extensive glycosylation of mature glycophorin A. This Glycophorin A Antibody demonstrates detection of the erythroid membrane glycoprotein in K562 cells.



Glycophorin A Antibody GYPA/280 Purity Analysis by SDS-PAGE. Electrophoretic analysis of purified, BSA-free Glycophorin A Antibody / Erythroid Cell Marker, clone GYPA/280, with 2 ug loaded under non-reducing (NR) and reducing (R) conditions. The non-reduced sample shows intact antibody at approximately 110-120 kDa, while the reduced sample shows major bands at approximately 50 and 25 kDa corresponding to the antibody heavy and light chains, respectively.

Description

Glycophorin A Antibody / Erythroid Cell Marker recognizes glycophorin A, a heavily glycosylated transmembrane sialoglycoprotein encoded by the GYPA gene. Also known as GPA and CD235a, glycophorin A is a major intrinsic membrane protein of human erythrocytes and is expressed throughout much of erythroid differentiation. Its abundant and lineage-associated expression has made glycophorin A an established marker for identifying erythroid cells and investigating red blood cell development.

Glycophorin A is a single-pass membrane protein with a highly glycosylated extracellular domain. The protein carries the M and N blood group antigens of the MNS blood group system, with differences in the extracellular amino acid sequence determining M and N antigen specificity. Extensive O-linked glycosylation and sialic acid residues contribute substantially to the biochemical properties of the erythrocyte surface and help create the highly charged glycocalyx characteristic of red blood cells.

Beyond its use as an erythroid lineage marker, GYPA participates in erythrocyte membrane organization and function. Glycophorin A is associated with the ankyrin-1 membrane complex and contributes to the function and membrane expression of the anion exchanger SLC4A1, also known as band 3. Its extracellular glycans can additionally participate in

host-pathogen interactions; notably, glycophorin A serves as an erythrocyte receptor for the Plasmodium falciparum ligand EBA-175. These properties make GYPA relevant to research involving erythropoiesis, red blood cell membrane biology, blood group antigens and erythrocyte-pathogen interactions.

Clone GYPA/280 is a mouse monoclonal antibody generated against recombinant human glycophorin A protein and purified by Protein G affinity chromatography. The antibody recognizes human GYPA, with glycophorin A commonly displaying migration around 38-39 kDa despite its substantially smaller polypeptide backbone because of extensive glycosylation. NSJ Bioreagents provides this Glycophorin A Antibody for research into erythroid differentiation, red blood cell biology and GYPA expression. An Erythroid Cell Marker antibody can support studies of erythroid lineage cells and glycophorin A biology.

Explore our CD Antibodies page for additional reagents targeting cell-surface proteins used to identify and characterize hematopoietic cell populations.

Application Notes

Optimal dilution of the Glycophorin A Antibody / Erythroid Cell Marker should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 minutes
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Recombinant human GPA protein was used as the immunogen for the Glycophorin A antibody.

Storage

Store the Glycophorin A antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Glycophorin A antibody, GYPA antibody, GPA antibody, CD235a antibody, MN sialoglycoprotein antibody, sialoglycoprotein alpha antibody

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