abcam

ab233580

FITC Anti-Glycophorin A antibody [JC159]

Anti-Glycophorin A antibody [JC159] conjugated to FITC - suitable for flow cytometry, and reacts with human samples. Clone [JC159] is a mouse monoclonal antibody cited in 7 publications.

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Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	FITC
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.4 Preservative: 0.0975% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing GYPA protein. The exact immunogen used to generate this antibody is proprietary information. Database link P02724
Clone number	JC159
Purification technique	Size-exclusion chromatography

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	4 µL for 10^6 Cells

Notes	-

Target data

See full target information GYPA

Function	Component of the ankyrin-1 complex, a multiprotein complex involved in the stability and shape of the erythrocyte membrane (PubMed:35835865). Glycophorin A is the major intrinsic membrane protein of the erythrocyte. The N-terminal glycosylated segment, which lies outside the erythrocyte membrane, has MN blood group receptors. Appears to be important for the function of SLC4A1 and is required for high activity of SLC4A1. May be involved in translocation of SLC4A1 to the plasma membrane. (Microbial infection) Appears to be a receptor for Hepatitis A virus (HAV). (Microbial infection) Receptor for P.falciparum erythrocyte-binding antigen 175 (EBA-175); binding of EBA-175 is dependent on sialic acid residues of the O-linked glycans.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Store in the dark

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Glycophorin A also known as CD235a is a major glycoprotein of red blood cell membranes with a mass around 31 kDa. It is importantly expressed on the surface of erythrocytes. Glycophorin A plays an important role in maintaining cell membrane integrity and is associated with various antigenic sites which are important for compatibility testing. Researchers often detect Glycophorin A using antibodies such as Glycophorin A APC or Glycophorin A FITC in flow cytometry studies due to its distinct expression on red blood cells.
Biological function summary	Glycophorin A interacts with other membrane proteins to form part of the membrane's skeletal protein network. This network stabilizes the erythrocyte structure and contributes to its flexibility essential for passing through narrow capillaries. Glycophorin A does not form part of any large multiprotein complex but does interact with other glycophorins such as Glycophorin B. These interactions help to form the MN and Ss blood group antigens.

Pathways	Glycophorin A is involved in several pathways including the erythrocyte development and lipid raft pathways. These pathways are important for cell signaling and membrane transport processes. Glycophorin A's role in erythrocyte development is connected to protein 4.1R which links the membrane to the underlying cytoskeleton influencing red blood cell shape and stability. Additionally its role in lipid raft-mediated signaling intersects with proteins involved in immune response regulation.
Associated diseases and disorders	Glycophorin A has associations with several conditions including malaria and hereditary spherocytosis. The interaction between Plasmodium falciparum and Glycophorin A contributes to the parasite's ability to invade erythrocytes indicating its relevance in malaria research. Additionally abnormalities with Glycophorin A expression or structure can lead to hereditary spherocytosis often related to a disruption in its interaction with ankyrin another structural protein. Understanding these associations helps elucidate the pathological mechanisms and potential therapeutic targets for these diseases.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

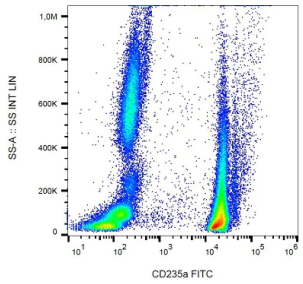
We do not recommend this combination. It is not covered by our product promise.

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1 product image



Flow Cytometry - FITC Anti-Glycophorin A antibody [JC159] (ab233580)

Glycophorin A Flow Cytometry staining using mouse Anti-Glycophorin A antibody

Surface staining of Glycophorin A (CD235a) in human peripheral blood cells (erythrocytes and leukocytes) with ab233580. Gated on leukocytes and erythrocytes.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.