

Monoclonal Antibody to CD42a / GPIX - FITC

Alternate names: GP-IX, GP9, Glycoprotein 9, Platelet glycoprotein IX

Catalog No.: AM05210FC-N
Quantity: 100 Tests
Concentration: Lot specific

Background: Single-chain membrane glycoprotein that forms a non-covalent complex with GPIb. (MW

23kDa) Reactivity with resting and activated platelets, weakly on monocytes, megakaryocytes and attachment site for the platelet plasma membrane to the submembrane cytoskeleton. GPIb/IX complex, functions as the receptor for ristocetin-induced binding of von Willebrand factor and as the von Willebrand factor-depend

adhesion receptor.

Uniprot ID: P14770

NCBI: <u>NP_000165.1</u>

GenelD: <u>2815</u>

Host / Isotype: Mouse / IgG1

Clone: ESS

Format: State: Liquid purified IgG fraction

Buffer System: PBS containing 0.2% protein carrier and 0.08% Sodium Azide as

preservative. **Label:** FITC

Applications: Flow Cytometry.

Identification of platelets.
Identification of megakaryocytes.

Diagnosis of Bernard-Soulier syndrome (CD42a-). Megakaryoblastic/cytic leukemia's (CD42a+).

See Protocols for more details.

Other applications not tested. Optimal dilutions are dependent on conditions and should

be determined by the user.

Specificity: This antibody recognises human Platelet GPIX.

Species: Human.

Other species not tested.

Storage: Store the antibody undiluted at 2-8°C.

Do Not Freeze!

Shelf life: One year from despatch.

General Readings: 1. Fijnheer R, Modderman PW, Veldman H, Ouwehand WH, Nieuwenhuis HK, Roos D, et al.

Detection of platelet activation with monoclonal antibodies and flow cytometry. Changes

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during platelet storage. Transfusion. 1990 Jan;30(1):20-5. PubMed PMID: 1688666.

- 2. Du X, Beutler L, Ruan C, Castaldi PA, Berndt MC. Glycoprotein Ib and glycoprotein IX are fully complexed in the intact platelet membrane. Blood. 1987 May;69(5):1524-7. PubMed PMID: 2436691.
- 3. Structure of the glycoprotein Ib-IX complex from platelet membranes Fox JEB, Aggerbeck L.P., Berndt M.C., J. Biol. Chem. 1988:263:4882-4890
- 4. Leucocyte Typing IV: White Cell Differentiation Antigens Nieuwenhuis H.K. Report on functional studies. In: Knapp W., Dorken B., Gilks W.R., et al, eds. Oxford: Oxford University Press: 1989:1002-1003.

Protocols:

Use

Consult the appropriate Negative Control factsheet to determine the amount of antibody to be used as a control for Platelets.

Collect blood aseptically by venipuncture into an ACD or EDTA blood collection tube. Important: Within 5 minutes of blood collection, fix blood sample by placing 100 µl of blood in test tube containing 1 ml of cold (4°C) 1X PBS with 1% paraformaldehyde. Mix by vortexing.

Centrifuge the fixed blood at 1200 x g for 5 minutes at room temperature (RT) 20°C. Aspirate the supernatant, leave pellet.

Prior to staining, wash the fixed blood pellet 2X with 1 ml 1X PBS + 0.1% Azide at RT. Centrifuge the fixed blood at 1200 x g for 5 minutes at room temperature (RT) 20°C. Aspirate the supernatant, leave pellet.

Resuspend the pellet in 1 ml of 1X PBS at RT.

To a clean labeled test tube add 10 µl of MAb.

Carefully add 50 ul of the fixed blood suspension to the bottom of the test tube. Vortex and incubate at room temperature for at least 15 minutes and analyzed within 3 hours.

Please note: Using this procedure will yield twenty samples for platelet analysis. Select logarithmic (Log) amplification for both Forward (FSC) and Side (SSC) scatters, while collecting data for platelets.

See instrument manufacturer's instructions for Immunofluorescence analysis with a flow cytometer or microscope.

