

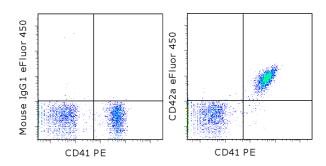
An Affymetrix Company

# Anti-Human CD42a eFluor® 450

Catalog Number: 48-0428

Also known as: Glycoprotein IX, GP9

RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of normal human platelets with Anti-Human CD41a PE (cat. 12-0419) and Mouse IgG1 K Isotype Control eFluor® 450 (cat. 48-4714) (left) or Anti-Human CD42a eFluor® 450 (right).

## **Product Information**

Contents: Anti-Human CD42a eFluor® 450

REF C

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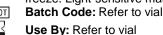
Clone: GR-P

**Concentration:** 5 uL (0.25 ug)/test **Host/Isotype:** Mouse IgG1, kappa



**Formulation:** aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer **Temperature Limitation:** Store at 2-8°C. Do not

freeze. Light-sensitive material.





### Description

This GR-P monoclonal antibody reacts with human CD42a, which is also known as glycoprotein IX (GPIX). CD42a is a 22-kDa transmembrane protein that is constitutively expressed on platelets and megakaryocytes. CD42a associates with CD42b, CD42c, and CD42d to form the GPIb-V-IX complex, which binds the von Willebrand factor, an endothelial adhesion protein, to mediate platelet adhesion and activation. This binding results in platelet aggregation at sites of vascular injury. This receptor complex has also been demonstrated to bind thrombin, factors XI and XII, P-selectin, and Mac-1. Finally, a point mutation within the leucine-rich motif of CD42a has been linked to Bernard-Soulier syndrome.

## **Applications Reported**

Anti-Human CD42a eFluor® 450 has been reported for use in flow cytometric analysis.

## **Applications Tested**

The GR-P antibody has been pre-titrated and tested by flow cytometric analysis of normal human platelets. This can be used at 5  $\mu$ L (0.25  $\mu$ g) per test. A test is defined as the amount ( $\mu$ g) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test.

eFluor® 450 is a replacement for Pacific Blue®. eFluor® 450 emits at 456 nm and is excited with the Violet laser (405 nm). Please make sure that your instrument is capable of detecting this fluorochome.

## References

Eisbacher M, Khachigian LM, Khin TH, Holmes ML, Chong BH. Inducible expression of the megakaryocyte-specific gene glycoprotein IX is mediated through an Ets binding site and involves upstream activation of extracellular signal-regulated kinase. Cell Growth Differ. 2001 Aug;12(8):435-45. (**GR-P**, FC)

Canobbio I, Balduini C, Torti M. Signalling through the platelet glycoprotein Ib-V-IX complex. Cell Signal. 2004 Dec;16(12):1329-44.



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Slupsky JR, Kamiguti AS, Rhodes NP, Cawley JC, Shaw AR, Zuzel M. The platelet antigens CD9, CD42 and integrin alpha IIb beta IIIa can be topographically associated and transduce functionally similar signals. Eur J Biochem. 1997 Feb 15;244(1):168-75.

Hickey MJ, Williams SA, Roth GJ. Human platelet glycoprotein IX: an adhesive prototype of leucine-rich glycoproteins with flank-center-flank structures. Proc Natl Acad Sci U S A. 1989 Sep;86(17):6773-7.

#### **Related Products**

12-0419 Anti-Human CD41a PE (HIP8) 48-4714 Mouse IgG1 K Isotype Control eFluor® 450 (P3.6.2.8.1)

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