

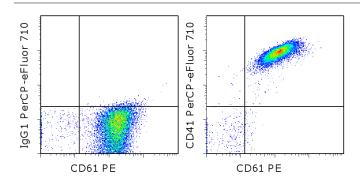
An Affymetrix Company

Anti-Mouse CD41 PerCP-eFluor® 710

Catalog Number: 46-0411

Also known as: fibrinogen receptor, gpllb/llla, integrin alpha lib

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



Staining of mouse platelets with Anti-Mouse/Rat CD61 (Integrin beta 3) PE (cat. 12-0611) and 0.25 ug of Rat IgG1 K Isotype Control PerCP-eFluor® 710 (cat. 46-4301) (left) or 0.25 ug of Anti-Mouse CD41 PerCP-eFluor® 710 (right). Total viable events were used for analysis.

Product Information

Contents: Anti-Mouse CD41 PerCP-eFluor®

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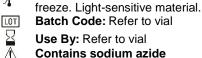
Clone: eBioMWReg30 (MWReg30)

Concentration: 0.2 mg/mL Host/Isotype: Rat IgG1, kappa



Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

Temperature Limitation: Store at 2-8°C. Do not







Description

The eBioMWReg30 monoclonal antibody reacts with mouse CD41 (fibrinogen receptor, gpllb, integrin alpha IIb). While initially thought to be expressed exclusively on the surface of platelets and megakaryocytes, it has been demonstrated that CD41 is also expressed on hematopoietic progenitors in the embryo, fetus and adult. CD41 associates with CD61 (gpllla, integrin beta III) to form a receptor which plays a major role in platelet function, including binding of several adhesion molecules such as fibrinogen, fibronectin and vitronectin.

Recently, the SLAM-family markers, CD48 and CD150 have been used to reliably identify hematopoietic stem cells (HSC). Specifically, it was found that CD150+CD48- bone marrow cells were highly efficient in their ability to confer long-term multi-lineage reconstitution in irradiated mice. Furthermore, the efficiency of reconstitution was enhanced when HSCs were further enriched through the exclusion of CD41+ cells. Thus, the use of CD150+CD48-CD41- as an expression profile efficiently identifies hematopoietic stem cells.

Applications Reported

This eBioMWReg30 (MWReg30) antibody has been reported for use in flow cytometric analysis.

Applications Tested

This eBioMWReg30 (MWReg30) antibody has been tested by flow cytometric analysis of mouse platelets. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

PerCP-eFluor® 710 can be used in place of PE-Cy5, PE-Cy5.5 or PerCP-Cy5.5. PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm). Please make sure that your instrument is capable of detecting this fluorochrome. For a filter configuration, we recommend using the 685 LP dichroic mirror and 710/40 band pass filter, however the 695/40 band pass filter is an acceptable alternative.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 uL cell sample + 100 uL IC Fixation



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Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

References

Bertrand JY, Giroux S, Golub R, Klaine M, Jalil A, Boucontet L, Godin I, Cumano A. Characterization of purified intraembryonic hematopoietic stem cells as a tool to define their site of origin. Proc Natl Acad Sci U S A. 2005 Jan 4;102(1):134-9. (MWReg30, FC, PubMed)

Mitjavila-Garcia MT, Cailleret M, Godin I, Nogueira MM, Cohen-Solal K, Schiavon V, Lecluse Y, Le Pesteur F, Lagrue AH, Vainchenker W. Expression of CD41 on hematopoietic progenitors derived from embryonic hematopoietic cells. Development. 2002 Apr;129(8):2003-13. (MWReg30, FC, PubMed)

Teeling JL, Jansen-Hendriks T, Kuijpers TW, de Haas M, van de Winkel JG, Hack CE, Bleeker WK. Therapeutic efficacy of intravenous immunoglobulin preparations depends on the immunoglobulin G dimers: studies in experimental immune thrombocytopenia. Blood. 2001 Aug 15;98(4):1095-9. (MWReg30, FA, PubMed)

Nieswandt B, Echtenacher B, Wachs FP, Schroder J, Gessner JE, Schmidt RE, Grau GE, Mannel DN. Acute systemic reaction and lung alterations induced by an antiplatelet integrin gpllb/Illa antibody in mice. Blood. 1999 Jul 15;94(2):684-93. (MWReg30, FC, FA, IHC, IP, PubMed)

Related Products

12-0611 Anti-Mouse/Rat CD61 (Integrin beta 3) PE (2C9.G3) 46-4301 Rat IgG1 K Isotype Control PerCP-eFluor® 710