full spectrum cell analysis®
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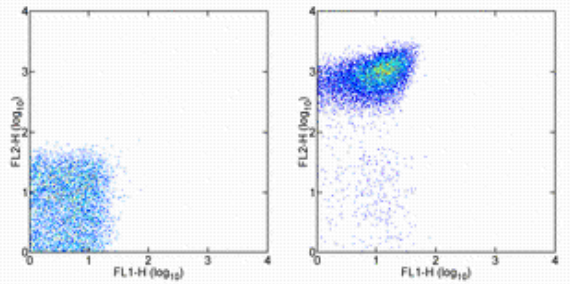
Anti-Mouse CD41 Purified

Catalog Number: 14-0411
Also Known As:fibrinogen receptor, gpIIb/IIIa, integrin alpha Iib
RUO: For Research Use Only



Staining of mouse platelets with 0.125 ug of Rat IgG1 Isotype Control Purified (cat. 14-4301) (left) or 0.125 ug of Anti-Mouse CD41 Purified (right) followed by Anti-Rat IgG PE (cat. 12-4822).

Product Information

Contents: Anti-Mouse CD41 Purified
REF **Catalog Number:** 14-0411
Clone: eBioMWReg30 (MWReg30)
Concentration: 0.5 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.
LOT **Batch Code:** Refer to Vial
Use By: Refer to Vial
Caution, contains Azide

Description

The eBioMWReg30 monoclonal antibody reacts with mouse CD41 (fibrinogen receptor, gpIIb, 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 (gpIIIa, 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, immunoprecipitation, and ELISA.

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 0.25 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 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

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 gpIIb/IIIa antibody in mice. Blood. 1999 Jul 15;94(2):684-93. (**MWReg30**, FC, FA, IHC, IP, PubMed)

Related Products

11-0611 Anti-Mouse/Rat CD61 (Integrin beta 3) FITC (2C9.G3)
12-4822 F(ab')2 Anti-Rat IgG PE (polyclonal)
14-4301 Rat IgG1 K Isotype Control Purified

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