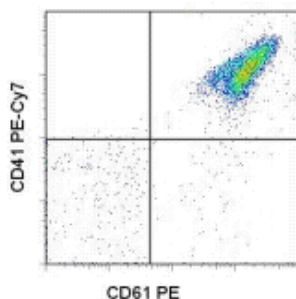


## Anti-Mouse CD41 PE-Cyanine7

**Catalog Number:** 25-0411

**Also Known As:** fibrinogen receptor, gpIIb/IIIa, integrin alpha IIb

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



Staining of mouse platelets with Anti-Mouse CD61 PE (cat. 12-0611) and 0.25  $\mu$ g of Anti-Mouse CD41 PE-Cyanine7.

### Product Information

**Contents:** Anti-Mouse CD41 PE-Cyanine7

**REF** **Catalog Number:** 25-0411

**Clone:** eBioMWRReg30 (MWRReg30)

**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 freeze. Light-sensitive material. This tandem dye is sensitive to photo-induced oxidation. Protect this vial from light during storage, handling & experimental procedures.



**LOT** **Batch Code:** Refer to Vial



**Use By:** Refer to Vial



**Caution, contains Azide**

### Description

The eBioMWRReg30 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 eBioMWRReg30 (MWRReg30) antibody has been reported for use in flow cytometric analysis.

### Applications Tested

This eBioMWRReg30 (MWRReg30) antibody has been tested by flow cytometric analysis of mouse platelets. This can be used at less than or equal to 0.5  $\mu$ 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  $10^5$  to  $10^8$  cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

**Light sensitivity:** This tandem dye is sensitive photo-induced oxidation. Please protect this vial and stained samples from light.

**Fixation:** Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100  $\mu$ L cell sample + 100  $\mu$ L IC Fixation 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

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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.

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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. (MWRReg30, 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. (MWRReg30, FC, FA, IHC, IP, PubMed)

#### Related Products

12-0611 Anti-Mouse/Rat CD61 (Integrin beta 3) PE (2C9.G3)

25-4301 Rat IgG1 K Isotype Control PE-Cyanine7

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