

# CD41a Monoclonal Antibody (eBioMWRReg30 (MWRReg30)), Super Bright™ 645, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Host/Isotype	Rat / IgG1, kappa
Recommended Isotype Control	Rat IgG1 kappa Isotype Control (eBRG1), Super Bright™ 645, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBioMWRReg30 (MWRReg30)
Conjugate	Super Bright™ 645
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2762664

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	1 Publication
Immunocytochemistry (ICC/IF)	-	1 Publication
Flow Cytometry (Flow)	1 µg/test	2 Publications

## Product Specific Information

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 stimulated mouse platelets. This may be used at less than or equal to 1 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  $\mu$ 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.

Super Bright 645 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 645 nm. We recommend using a 660/20 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

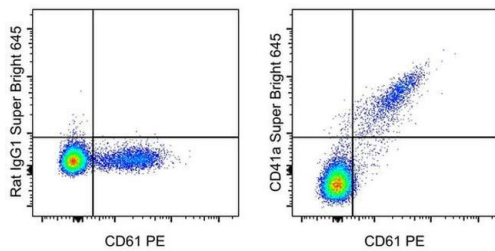
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222-49) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333-57) 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.

Excitation: 405 nm; Emission: 645 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

## Product Images For CD41a Monoclonal Antibody (eBioMWRReg30 (MWRReg30)), Super Bright™ 645, eBioscience™



### CD41a Antibody (64-0411-82) in Flow

Swiss Webster mouse platelets were stained with CD61 Monoclonal Antibody, PE (Product # 12-0611-83) and 0.5  $\mu$ g of Rat IgG1 kappa Isotype Control, Super Bright 645 (Product # 64-4301-82) (left) or 0.5  $\mu$ g of CD41a Monoclonal Antibody, Super Bright 645 (right). Total viable cells were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

## 4 References

### Immunohistochemistry (1)

British journal of haematology

#### All-trans-retinoic acid shifts Th1 towards Th2 cell differentiation by targeting NFAT1 signalling to ameliorate immune-mediated aplastic anaemia.

"Published figure using CD41a monoclonal antibody (Product # 64-0411-82) in Immunohistochemistry"

Authors: Tang D,Liu S,Sun H,Qin X,Zhou N,Zheng W,Zhang M,Zhou H,Tuersunayi A,Duan C,Chen J

**Species**

Not Applicable

**Dilution**

Not Cited

**Year**

2020

### Immunocytochemistry (1)

Scientific reports

#### EphrinB2 regulates the emergence of a hemogenic endothelium from the aorta.

"Published figure using CD41a monoclonal antibody (Product # 64-0411-82) in Immunocytochemistry"

Authors: Chen II,Caprioli A,Ohnuki H,Kwak H,Porcher C,Tosato G

**Species**

Not Applicable

**Dilution**

Not Cited

**Year**

2016

### Flow Cytometry (2)

The Journal of biological chemistry

#### SNAP23 is essential for platelet and mast cell development and required in connective tissue mast cells for anaphylaxis.

"Published figure using CD41a monoclonal antibody (Product # 64-0411-82) in Flow Cytometry"

Authors: Cardenas RA,Gonzalez R,Sanchez E,Ramos MA,Cardenas EI,Rodarte AI,Alcazar-Felix RJ,Isaza A,Burns AR,Heidelberg R,Adachi R

**Species**

Not Applicable

**Dilution**

Not Cited

**Year**

2021

Cell

#### Hematopoietic Stem Cells Count and Remember Self-Renewal Divisions.

"Published figure using CD41a monoclonal antibody (Product # 64-0411-82) in Flow Cytometry"

Authors: Bernitz JM,Kim HS,MacArthur B,Sieburg H,Moore K

**Species**

Not Applicable

**Dilution**

Not Cited

**Year**

2016

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