

Datasheet: MCA2245SBB700

Description:	RAT ANTI MOUSE CD41:StarBright Blue 700
Specificity:	CD41
Other names:	INTEGRIN ALPHA IIB
Format:	StarBright Blue 700
Product Type:	Monoclonal Antibody
Clone:	MWReg30
Isotype:	IgG1
Quantity:	100 TESTS/0.5ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Mouse		
Product Form	Purified IgG conjugated to StarBright Blue 700 - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	StarBright Blue 700	473	703
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin 0.1% Pluronic F68 0.1% PEG 3350 0.05% Tween 20		

Immunogen Purified murine platelets

External Database Links

UniProt:

[Q9QUM0](#) [Related reagents](#)

Entrez Gene:

[16399](#) Itga2b [Related reagents](#)

Specificity

Rat anti Mouse CD41 antibody, clone MWReg30 recognizes the mouse integrin alpha IIb subunit CD41. CD41 is a ~125 kDa single pass type 1 transmembrane glycoprotein expressed by platelets, megakaryocytes ([Zhang *et al.* 2007](#)), mast cells ([Berlanga *et al.* 2005](#)), and hematopoietic progenitors ([Mitjavila-Garcia *et al.* 2002](#)). CD41 forms a heterodimer with [CD61](#).

The CD41/CD61 complex is important for platelet adhesion and aggregation ([Patel *et al.* 2003](#)) acting as a receptor for many extracellular matrix proteins including fibronectin, thrombospondin and vitronectin ([Weisel *et al.* 1992](#)).

Rat anti mouse CD41, clone MWReg30 has been reported to inhibit PMA induced aggregation *in vitro* and to induce hypothermia *in vivo* ([Nieswandt *et al.* 1999](#)).

Flow Cytometry

Use 5µl of the suggested working dilution to label 10⁶ cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.

References

1. Larson, M.K. and Watson, S.P. (2006) Regulation of proplatelet formation and platelet release by integrin alpha IIb beta3. [Blood. 108: 1509-14.](#)
2. Tamagawa-Mineoka, R. *et al.* (2007) The role of platelets in leukocyte recruitment in chronic contact hypersensitivity induced by repeated elicitation. [Am J Pathol. 170: 2019-29.](#)
3. Lutskiy, M.I. *et al.* (2007) WASP localizes to the membrane skeleton of platelets. [Br J Haematol. 139: 98-105.](#)
4. Perez, L.E. *et al.* (2008) SH2-inositol phosphatase 1 negatively influences early megakaryocyte progenitors. [PLoS One. 3: e3565.](#)
5. Zanzinger, K. *et al.* (2009) Regulation of triggering receptor expressed on myeloid cells 1 expression on mouse inflammatory monocytes. [Immunology. 128: 185-95.](#)
6. Winter, O. *et al.* (2010) Megakaryocytes constitute a functional component of a plasma cell niche in the bone marrow. [Blood. 116: 1867-75.](#)
7. Takayama, M. *et al.* (2010) Genetic analysis of hierarchical regulation for Gata1 and NF-E2 p45 gene expression in megakaryopoiesis. [Mol Cell Biol. 30: 2668-80.](#)
8. Sullivan, B.P. *et al.* (2010) Protective and damaging effects of platelets in acute cholestatic liver injury revealed by depletion and inhibition strategies. [Toxicol Sci. 115: 286-94.](#)
9. Motohashi, H. *et al.* (2010) NF-E2 domination over Nrf2 promotes ROS accumulation and megakaryocytic maturation. [Blood. 115 \(3\): 677-86.](#)
10. Göçmen, A.Y. *et al.* (2011) Effect of resveratrol on platelet activation in hypercholesterolemic rats: CD40-CD40L system as a potential target. [Appl Physiol Nutr Metab. 36 \(3\): 323-30.](#)

11. Teeling, J.L. *et al.* (2012) Intracerebral immune complex formation induces inflammation in the brain that depends on Fc receptor interaction [Acta Neuropathol. 124: 479-90.](#)
12. Fujita, R. *et al.* (2013) NF-E2 p45 Is Important for Establishing Normal Function of Platelets. [Mol Cell Biol. 33: 2659-70.](#)
13. Goggs, R. *et al.* (2013) The small GTPase Rif is dispensable for platelet filopodia generation in mice. [PLoS One. 8 \(1\): e54663.](#)
14. Woods, S.J. *et al.* (2015) Kinetic profiling of *in vivo* lung cellular inflammatory responses to mechanical ventilation. [Am J Physiol Lung Cell Mol Physiol. 308 \(9\): L912-21.](#)
15. Flierl, U. *et al.* (2015) Phosphorothioate backbone modifications of nucleotide-based drugs are potent platelet activators. [J Exp Med. 212 \(2\): 129-37.](#)
16. Devanathan, V. *et al.* (2015) Platelet Gi protein Gai2 is an essential mediator of thrombo-inflammatory organ damage in mice. [Proc Natl Acad Sci U S A. 112 \(20\): 6491-6.](#)
17. Cuccurullo, A. *et al.* (2016) Blockade of Thrombopoietin Reduces Organ Damage in Experimental Endotoxemia and Polymicrobial Sepsis. [PLoS One. 11 \(3\): e0151088.](#)
18. Ryan, J. *et al.* (2016) Myeloid cell-mediated renal injury in rapidly progressive glomerulonephritis depends upon spleen tyrosine kinase. [J Pathol. 238 \(1\): 10-20.](#)
19. Criel, M. *et al.* (2016) Absence of Pear1 does not affect murine platelet function *in vivo*. [Thromb Res. 146: 76-83.](#)
20. Asai, J. *et al.* (2016) Platelets Regulate the Migration of Keratinocytes via Podoplanin/CLEC-2 Signaling during Cutaneous Wound Healing in Mice. [Am J Pathol. 186 \(1\): 101-8.](#)
21. Williams, C.M. *et al.* (2016) Identification of roles for the SNARE-associated protein, SNAP29, in mouse platelets. [Platelets. 27 \(4\): 286-94.](#)
22. Thomson, A.K. *et al.* (2017) Survival of motor neurone protein is required for normal postnatal development of the spleen. [J Anat. 230 \(2\): 337-46.](#)
23. Moore, S.F. *et al.* (2021) Opposing Roles of GSK3 α and GSK3 β Phosphorylation in Platelet Function and Thrombosis. [Int J Mol Sci. 22\(19\):10656.](#)

Storage	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.
Guarantee	12 months from date of despatch
Acknowledgements	This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts
Health And Safety Information	Material Safety Datasheet documentation #20471 available at: https://www.bio-rad-antibodies.com/SDS/MCA2245SBB700 20471
Regulatory	For research purposes only

Related Products

Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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