

Datasheet: MCA2245

BATCH NUMBER 163142

Description:	RAT ANTI MOUSE CD41
Specificity:	CD41
Other names:	INTEGRIN ALPHA IIB
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MWReg30
Isotype:	IgG1
Quantity:	0.25 mg

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	▪			1/50 - 1/100
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

Target Species	Mouse
Product Form	Purified IgG - liquid
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

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Purified murine platelets
External Database Links	<p>UniProt: Q9QUM0 Related reagents</p> <p>Entrez Gene: 16399 Itga2b Related reagents</p>
RRID	AB_323512
Specificity	<p>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.</p> <p>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).</p> <p>Rat anti mouse CD41, clone MWReg30 has been reported to inhibit PMA induced aggregation <i>in vitro</i> and to induce hypothermia <i>in vivo</i> (Nieswandt et al. 1999).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 1. Winter, O. et al. (2010) Megakaryocytes constitute a functional component of a plasma cell niche in the bone marrow. Blood. 116: 1867-75. 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. 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. 4. Larson, M.K. and Watson, S.P. (2006) Regulation of proplatelet formation and platelet release by integrin alpha IIb beta3. Blood. 108: 1509-14. 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. Lutskiy, M.I. et al. (2007) WASP localizes to the membrane skeleton of platelets. Br J Haematol. 139: 98-105. 7. 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. 8. Fujita, R. et al. (2013) NF-E2 p45 Is Important for Establishing Normal Function of

Platelets. [Mol Cell Biol. 33: 2659-70.](#)

9. Perez, L.E. *et al.* (2008) SH2-inositol phosphatase 1 negatively influences early megakaryocyte progenitors. [PLoS One. 3: e3565.](#)

10. 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.](#)

11. Motohashi, H. *et al.* (2010) NF-E2 domination over Nrf2 promotes ROS accumulation and megakaryocytic maturation. [Blood. 115 \(3\): 677-86.](#)

12. Flierl, U. *et al.* (2015) Phosphorothioate backbone modifications of nucleotide-based drugs are potent platelet activators. [J Exp Med. 212 \(2\): 129-37.](#)

13. 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.](#)

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. Goggs, R. *et al.* (2013) The small GTPase Rif is dispensable for platelet filopodia generation in mice. [PLoS One. 8 \(1\): e54663.](#)

16. Williams, C.M. *et al.* (2016) Identification of roles for the SNARE-associated protein, SNAP29, in mouse platelets. [Platelets. 27 \(4\): 286-94.](#)

17. Cuccurullo, A. *et al.* (2016) Blockade of Thrombopoietin Reduces Organ Damage in Experimental Endotoxemia and Polymicrobial Sepsis. [PLoS One. 11 \(3\): e0151088.](#)

18. Criel, M. *et al.* (2016) Absence of Pear1 does not affect murine platelet function *in vivo*. [Thromb Res. 146: 76-83.](#)

19. 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.](#)

20. 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.](#)

21. 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.](#)

22. 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	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.
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Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee	12 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA2245 10040
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Regulatory	For research purposes only
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Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®550 , DyLight®650 , DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin

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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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