

Datasheet: MCA2245GA

Description:	iption: RAT ANTI MOUSE CD41	
Specificity:	CD41	
Other names:	INTEGRIN ALPHA IIB	
Format:	Purified	
Product Type:	Monoclonal Antibody	
Clone:	MWReg30	
Isotype:	lgG1	
Quantity:	0.1 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 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 - liquid	
Preparation	Purified IgG prepared by affinity chromatography on Protein G supernatant	3 from tissue culture
Buffer Solution	Phosphate buffered saline	
Preservative Stabilisers	0.09% sodium azide (NaN ₃)	

Specificity	Rat anti Mouse CD41 antibody, clone MWReg30 recognizes	
RRID	AB_324398	
	Entrez Gene: 16399 Itga2b Related reagents	
External Database Links	UniProt: Q9QUM0 Related reagents	
Immunogen	Purified murine platelets	
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml	
Carrier Free	Yes	

use CD41 antibody, clone MWReg30 recognizes the mouse integrin alpha Ilb 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 10µl of the suggested working dilution to label 10⁶ cells in 100µl

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. <u>Blood. 115 (3): 677-86.</u>
- 10. Göçmen, A.Y. *et al.* (2011) Effect of resveratrol on platelet activation in hypercholesterolemic rats: CD40-CD40L system as a potential target. <u>Appl Physiol Nutr Metab.</u> 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 <u>Acta Neuropathol. 124:</u> 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. <u>Am J Physiol Lung Cell Mol Physiol.</u> 308 (9): L912-21.
- 15. Flierl, U. *et al.* (2015) Phosphorothioate backbone modifications of nucleotide-based drugs are potent platelet activators. <u>J Exp Med. 212 (2): 129-37.</u>
- 16. Devanathan, V. *et al.* (2015) Platelet Gi protein Gαi2 is an essential mediator of thrombo-inflammatory organ damage in mice. <u>Proc Natl Acad Sci U S A. 112 (20): 6491-6.</u>
- 17. Cuccurullo, A. *et al.* (2016) Blockade of Thrombopoietin Reduces Organ Damage in Experimental Endotoxemia and Polymicrobial Sepsis. <u>PLoS One. 11 (3): e0151088.</u>
- 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. <u>Am J Pathol.</u> 186 (1): 101-8.
- 21. Williams, C.M. *et al.* (2016) Identification of roles for the SNARE-associated protein, SNAP29, in mouse platelets. <u>Platelets. 27 (4): 286-94.</u>
- 22. Thomson, A.K. *et al.* (2017) Survival of motor neurone protein is required for normal postnatal development of the spleen. <u>J Anat. 230 (2): 337-46.</u>
- 23. Moore, S.F. *et al.* (2021) Opposing Roles of GSK3α and GSK3β 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.

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

Health And Safety Information

Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA2245GA 10040

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Rat IgG (STAR69...)

Goat Anti Rat IgG (STAR73...)

Rabbit Anti Rat IgG (STAR17...)

Goat Anti Rat IgG (STAR72...)

HRP

Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) <u>DyLight®550</u>, <u>DyLight®650</u>, <u>DyLight®800</u>

Rabbit Anti Rat IgG (STAR21...) <u>HRP</u>

Rabbit Anti Rat IgG (STAR16...) <u>DyLight®800</u>
Goat Anti Rat IgG (STAR131...) <u>Alk. Phos., Biotin</u>

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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 'M413532:221123'

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