

Datasheet: MCA740A647

Description:	MOUSE ANTI HUMAN CD42b:Alexa Fluor® 647
Specificity:	CD42b
Other names:	GPIB-ALPHA
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	AK2
Isotype:	lgG1
Quantity:	100 TESTS/1ml

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 - 1/10

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	Human				
Product Form	Purified IgG conjugated to Alexa Fluor 647 - liquid				
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm		
	Alexa Fluor®647	650	665		
Preparation Buffer Solution	Purified IgG prepared by affinity chromatography on Protein A from tissue supernatant				
Surrer Solution	Phosphate buffered saline				
Preservative	0.09% Sodium Azide ((NaN ₃)			
Stabilisers	1% Bovine Serum Alb	umin			
Approx. Protein Concentrations	IgG concentration 0.0	5 mg/ml			

External Database Links

UniProt:

P07359 Related reagents

Entrez Gene:

2811 GP1BA Related reagents

Specificity

Mouse anti Human CD42b antibody, clone AK2 recognizes the human CD42b cell surface antigen, also known as platelet glycoprotein GP1B.

CD42b is expressed by platelets and megakaryocytes. Clone AK2 has been reported to block the binding of von Willebrand Factor (VWF) to platelets.

Flow Cytometry

Use 10ul of the suggested working dilution to label 100ul whole blood

References

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- 2. Burgess, J.K. *et al.* (1998) Quinine-dependent antibodies bind a restricted set of epitopes on the glycoprotein Ib-IX complex: characterization of the epitopes. <u>Blood. 92: 2366-73.</u>
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- 4. Jayo, A. *et al.* (2010) L718P mutation in the membrane-proximal cytoplasmic tail of beta 3 promotes abnormal alpha IIb beta 3 clustering and lipid microdomain coalescence, and associates with a thrombasthenia-like phenotype. <u>Haematologica</u>. 95: 1158-66.
- 5. Lova, P. *et al.* (2004) Contribution of protease-activated receptors 1 and 4 and glycoprotein lb-IX-V in the G(i)-independent activation of platelet Rap1B by thrombin. <u>J Biol Chem. 279: 25299-306.</u>
- 6. Shen, Y. *et al.* (2000) Requirement of leucine-rich repeats of glycoprotein (GP) Ibalpha for shear-dependent and static binding of von Willebrand factor to the platelet membrane GP Ib-IX-V complex. <u>Blood. 95: 903-10.</u>
- 7. Wright, S.D. *et al.* (1993) Double heterozygosity for mutations in the platelet glycoprotein IX gene in three siblings with Bernard-Soulier syndrome. <u>Blood. 81: 2339-47.</u>
- 8. Nomura, S. *et al.* (1995) Significance of cytokines and CD68-positive microparticles in immune thrombocytopenic purpura. <u>Eur J Haematol. 55: 49-56.</u>
- 9. Speich, H.E. *et al.* (2008) Platelets undergo phosphorylation of Syk at Y525/526 and Y352 in response to pathophysiological shear stress. <u>Am J Physiol Cell Physiol. 295:</u> C1045-54.
- 10. Balduini, A. *et al* (2008) Adhesive receptors, extracellular proteins and myosin IIA orchestrate proplatelet formation by human megakaryocytes. <u>J Thromb Haemost. 6:</u> 1900-7.
- 11. Amor, N.B. *et al.* (2009) Acidic-store depletion is required for human platelet aggregation. <u>Blood Coagul Fibrinolysis</u>. 20: 511-6.
- 12. Tasneem, S. *et al.* (2009) Platelet adhesion to multimerin 1 in vitro: influences of platelet membrane receptors, von Willebrand factor and shear. <u>J Thromb Haemost. 7:</u> 685-92.
- 13. Lincoln, B. et al. (2010) Integrated system investigating shear-mediated platelet

interactions with von Willebrand factor using microliters of whole blood <u>Anal Biochem.</u> 405: 174-83.

- 14. Goetzl, E.J. *et al.* (2016) Human plasma platelet-derived exosomes: effects of aspirin. FASEB J. 30 (5): 2058-63.
- 15. Michalska-Jakubus, M. *et al.* (2017) Plasma endothelial microparticles reflect the extent of capillaroscopic alterations and correlate with the severity of skin involvement in systemic sclerosis. <u>Microvasc Res. 110: 24-31.</u>
- 16. Ralph, A. *et al.* (2016) Computational Tracking of Shear-Mediated Platelet Interactions with von Willebrand Factor. Cardiovasc Eng Technol. 7 (4): 389-405.
- 17. Rossi, E. *et al.* (2018) Human endoglin as a potential new partner involved in platelet-endothelium interactions. Cell Mol Life Sci. 75 (7): 1269-84.
- 18. Kim, J.S. *et al.* (2021) Randomization to Omega-3 Fatty Acid Supplementation and Endothelial Function in COPD: The COD-Fish Randomized Controlled Trial. <u>Chronic Obstr Pulm Dis. 8(1):41-53.</u>

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. This product is photosensitive and should be protected from light.

Guarantee

12 months from date of despatch

Acknowledgements

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Health And Safety Information

Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA740A647 10041

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL: Alexa Fluor® 647 (MCA928A647)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M384594:210513'

Printed on 16 Oct 2023

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