

Datasheet: MCA740F

Description:	MOUSE ANTI HUMAN CD42b:FITC	
Specificity:	CD42b	
Other names:	GPIB-ALPHA	
Format:	FITC	
Product Type:	Monoclonal Antibody	
Clone:	AK2	
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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	-			Neat - 1/10

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. The suggested working dilution is given as a guide only. It is recommended that the user titrates the antibody for use in his/her own system using appropriate negative/positive controls.

Target Species	Human		
Product Form	Purified IgG conjugate	ed to Fluorescein Isoth	niocyanate Isomer
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nn
	FITC	490	525
reparation suffer Solution	supernatant  Phosphate buffered s	by affinity chromatogo	rapny on Protein A
reservative stabilisers	0.09% Sodium Azide 1% Bovine Serum	Albumin	
oprox. Protein			

External	Database
Links	

## **UniProt:**

P07359 Related reagents

#### **Entrez Gene:**

2811 GP1BA Related reagents

## **RRID**

AB 321701

## **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:</u> 2366-73.
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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 Ib-IX-V in the G(i)-independent activation of platelet Rap1B by thrombin. <u>J</u> Biol Chem. 279: 25299-306.
- 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. Blood. 95: 903-10.
- 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. <u>FASEB J. 30 (5): 2058-63.</u>
- 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. Microvasc Res. 110: 24-31.
- 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>
- 19. Yang, B. *et al.* (2023) Endothelial-Related Biomarkers in Evaluation of Vascular Function During Progression of Sepsis After Severe Trauma: New Potential Diagnostic Tools in Sepsis. <u>J Inflamm Res. 16: 2773-82.</u>
- 20. Michalska-Jakubus, M.M. *et al.* (2020) Anti-endothelial cell antibodies are associated with apoptotic endothelial microparticles, endothelial sloughing and decrease in angiogenic progenitors in systemic sclerosis. <u>Postepy Dermatol Alergol.</u> 37 (5): 725-35.

## **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
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA740F">https://www.bio-rad-antibodies.com/SDS/MCA740F</a> 10041
Regulatory	For research purposes only

# Related Products

**Recommended Negative Controls** 

MOUSE IgG1 NEGATIVE CONTROL:FITC (MCA928F)

**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 Fax: +1 919 878 3751 America

Fax: +44 (0)1865 852 739 Fax: +49 (0) 89 8090 95 50 Email: antibody\_sales\_de@bio-rad.comd a Email: antibody\_sales\_us@bio-rad.com Email: antibody\_sales\_uk@bio-rad.com

То

batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M384631:210513'

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