

Datasheet: MCA740SBV570

### **BATCH NUMBER 100008259**

Description:	MOUSE ANTI HUMAN CD42b:StarBright Violet 570		
Specificity:	CD42b		
Other names:	GPIB-ALPHA		
Format:	StarBright Violet 570		
<b>Product Type:</b>	Monoclonal Antibody		
Clone:	AK2		
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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	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	Human				
Product Form	Purified IgG conjugate	Purified IgG conjugated to StarBright Violet 570 - liquid			
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)		
	StarBright Violet 570	404	571		
reparation	Purified IgG prepared supernatant	I by affinity chromatog	raphy on Protein A f		
ffer Solution	Phosphate buffered s	aline			
eservative	0.09% Sodium Azide	(NaN <sub>3</sub> )			
tabilisers	1% Bovine Serum Alb	oumin			
	0.1% Pluronic F68				
	0.1% PEG 3350				

### 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  $5\mu$ I of the suggested working dilution to label  $10^6$  cells in  $100\mu$ I. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.

#### References

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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. <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. Blood. 81: 2339-47.
- 8. Nomura, S. *et al.* (1995) Significance of cytokines and CD68-positive microparticles in immune thrombocytopenic purpura. Eur J Haematol. 55: 49-56.
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- 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.
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- 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. <u>Microvasc Res. 110: 24-31.</u>
- 16. Ralph, A. *et al.* (2016) Computational Tracking of Shear-Mediated Platelet Interactions with von Willebrand Factor. <u>Cardiovasc Eng Technol.</u> 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. J Inflamm Res. 16: 2773-82.

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: <a href="https://www.bio-rad-antibodies.com/SDS/MCA740SBV570">https://www.bio-rad-antibodies.com/SDS/MCA740SBV570</a> 20471
Regulatory	For research purposes only

### Related Products

## **Recommended Useful Reagents**

Email: antibody sales us@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 'M426148:231121'

Printed on 29 Apr 2024