Datasheet: MCA740SBV610

Description:	MOUSE ANTI HUMAN CD42b:StarBright Violet 610
Specificity:	CD42b
Other names:	GPIB-ALPHA
Format:	StarBright Violet 610
Product Type:	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 www.bio-rad-antibodies.com/protocols.

	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 conjugated to StarBright Violet 610 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
StarBright Violet 610	403	607

Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide (NaN_3)
1% Bovine Serum Albumin
0.1% Pluronic F68
0.1% PEG 3350
0.05% Tween 20

External Database Links	**UniProt:** P07359 Related reagents **Entrez Gene:** 2811 GP1BA Related reagents
RRID	AB_2943402
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 5µl of the suggested working dilution to label 10^6 cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.
References	1. Ward, C.M. & Berndt, M.C. (1995) Epitope and functional characterization of the CD42 (gpIb/IX) mAb panel. Leucocyte Typing V. White Cell Differentiation Antigens. Volume Two. Oxford University Press, Oxford. 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. Blood. 92: 2366-73. 3. Burgess, J.K. *et al.* (2000) Rifampicin-dependent antibodies bind a similar or identical epitope to glycoprotein IX-specific quinine-dependent antibodies. Blood. 95: 1988-92. 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. Haematologica. 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. J 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. 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. 9. Speich, H.E. *et al.* (2008) Platelets undergo phosphorylation of Syk at Y525/526 and Y352 in response to pathophysiological shear stress. Am J Physiol Cell Physiol. 295: C1045-54. 10. Balduini, A. *et al* (2008) Adhesive receptors, extracellular proteins and myosin IIA orchestrate proplatelet formation by human megakaryocytes. J Thromb Haemost. 6: 1900-7. 11. Amor, N.B. *et al.* (2009) Acidic-store depletion is required for human platelet aggregation. Blood Coagul Fibrinolysis. 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. J Thromb Haemost. 7: 685-92.
13. Lincoln, B. *et al.* (2010) Integrated system investigating shear-mediated platelet interactions with von Willebrand factor using microliters of whole blood Anal Biochem. 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. 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. Chronic Obstr Pulm Dis. 8(1):41-53.
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: https://www.bio-rad-antibodies.com/SDS/MCA740SBV610 20471
Regulatory	For research purposes only

Related Products

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

North & South America Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com
Worldwide Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com
Europe Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M422001:230822'

Printed on 17 May 2024