Datasheet: MCA740GA

BATCH NUMBER 162269

Description:	MOUSE ANTI HUMAN CD42b
Specificity:	CD42b
Other names:	GPIB-ALPHA
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AK2
Isotype:	IgG1
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
ELISA	▪			
Immunoprecipitation	▪			

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 - liquid
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
Carrier Free	Yes

Approx. Protein Concentrations	IgG concentration 1 mg/ml
External Database Links	**UniProt:** P07359 Related reagents **Entrez Gene:** 2811 GP1BA Related reagents
RRID	AB_324295
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	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	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/MCA740GA 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos., HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC

Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

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

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