

Datasheet: MCA740T

BATCH NUMBER 166573

Description:	MOUSE ANTI HUMAN CD42b
Specificity:	CD42b
Other names:	GPIB-ALPHA
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AK2
Isotype:	IgG1
Quantity:	25 µg

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	<p>UniProt: P07359 Related reagents</p> <p>Entrez Gene: 2811 GP1BA Related reagents</p>
RRID	AB_2279316
Specificity	<p>Mouse anti Human CD42b antibody, clone AK2 recognizes the human CD42b cell surface antigen, also known as platelet glycoprotein GP1B.</p> <p>CD42b is expressed by platelets and megakaryocytes. Clone AK2 has been reported to block the binding of von Willebrand Factor (VWF) to platelets.</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 100ul whole blood.
References	<ol style="list-style-type: none"> 1. Ward, C.M. & Berndt, M.C. (1995) Epitope and functional characterization of the CD42 (gplb/IX) mAb panel. Leucocyte Typing V. White Cell Differentiation Antigens. Volume Two. Oxford University Press, Oxford. 2. Burgess, J.K. <i>et al.</i> (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. <i>et al.</i> (2000) Rifampicin-dependent antibodies bind a similar or identical epitope to glycoprotein IX-specific quinine-dependent antibodies. Blood. 95: 1988-92. 4. Jayo, A. <i>et al.</i> (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. <i>et al.</i> (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. <i>et al.</i> (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. <i>et al.</i> (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. <i>et al.</i> (1995) Significance of cytokines and CD68-positive microparticles in immune thrombocytopenic purpura. Eur J Haematol. 55: 49-56. 9. Speich, H.E. <i>et al.</i> (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. <i>et al.</i> (2008) Adhesive receptors, extracellular proteins and myosin IIA orchestrate proplatelet formation by human megakaryocytes. J Thromb Haemost. 6: 1900-7. 11. Amor, N.B. <i>et al.</i> (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	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
Guarantee	12 months from date of despatch
Health And Safety Information	<p>Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA740T</p> <p>10040</p>
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
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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

'M422359:230906'

Printed on 21 Feb 2024

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