

Datasheet: MCA740EL

BATCH NUMBER 157689

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| Description: | MOUSE ANTI HUMAN CD42b:Low Endotoxin |
| Specificity: | CD42b |
| Other names: | GPIB-ALPHA |
| Format: | Low Endotoxin |
| Product Type: | Monoclonal Antibody |
| Clone: | AK2 |
| Isotype: | IgG1 |
| Quantity: | 0.5 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 | ▪ | | | |
| Functional Assays | ▪ | | | |

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.

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| 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 | None present |
| Carrier Free | Yes |

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|---------------------------------------|--|
| Endotoxin Level | < 0.01 EU/ug |
| 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_2232663 |
| 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. <i>Leucocyte Typing V. White Cell Differentiation Antigens. Volume Two.</i> 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: |

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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 -20°C.

Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10162 available at: <https://www.bio-rad-antibodies.com/SDS/MCA740EL>
10162

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:Low Endotoxin \(MCA928EL\)](#)

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|----------------------------------|---|------------------|---|---------------|---|
| 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

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