

## Datasheet: MCA740EL

**BATCH NUMBER 164081**

<b>Description:</b>	MOUSE ANTI HUMAN CD42b:Low Endotoxin
<b>Specificity:</b>	CD42b
<b>Other names:</b>	GPIB-ALPHA
<b>Format:</b>	Low Endotoxin
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AK2
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://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.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	None present
<b>Carrier Free</b>	Yes

<b>Endotoxin Level</b>	< 0.01 EU/ug
<b>Approx. Protein Concentrations</b>	IgG concentration 1 mg/ml
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P07359</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">2811</a>    GP1BA    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_2232663
<b>Specificity</b>	<p><b>Mouse anti Human CD42b antibody, clone AK2</b> 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>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 100ul whole blood.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Ward, C.M. &amp; 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.</li> <li>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. <a href="#">Blood. 92: 2366-73.</a></li> <li>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. <a href="#">Blood. 95: 1988-92.</a></li> <li>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. <a href="#">Haematologica. 95: 1158-66.</a></li> <li>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. <a href="#">J Biol Chem. 279: 25299-306.</a></li> <li>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. <a href="#">Blood. 95: 903-10.</a></li> <li>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. <a href="#">Blood. 81: 2339-47.</a></li> <li>8. Nomura, S. <i>et al.</i> (1995) Significance of cytokines and CD68-positive microparticles in immune thrombocytopenic purpura. <a href="#">Eur J Haematol. 55: 49-56.</a></li> <li>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. <a href="#">Am J Physiol Cell Physiol. 295: C1045-54.</a></li> <li>10. Balduini, A. <i>et al.</i> (2008) Adhesive receptors, extracellular proteins and myosin IIA orchestrate proplatelet formation by human megakaryocytes. <a href="#">J Thromb Haemost. 6:</a></li> </ol>

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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.](#)

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**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.

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**Guarantee**

12 months from date of despatch

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**Health And Safety Information**

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

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Secondary Antibodies

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|---|--|
| Rabbit Anti Mouse IgG (STAR12...)       | <a href="#">RPE</a>                              |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | <a href="#">Alk. Phos.</a> , <a href="#">HRP</a> |
| Goat Anti Mouse IgG (STAR76...)         | <a href="#">RPE</a>                              |
| Rabbit Anti Mouse IgG (STAR13...)       | <a href="#">HRP</a>                              |
| Goat Anti Mouse IgG (STAR70...)         | <a href="#">FITC</a>                             |

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 \(MCA928EL\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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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](https://bio-rad-antibodies.com/datasheets)

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