# Datasheet: MCA467G

## BATCH NUMBER 160503

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| **Description:** | MOUSE ANTI HUMAN CD41 |
| **Specificity:** | CD41 |
| **Other names:** | INTEGRIN ALPHA IIB |
| **Format:** | Purified |
| **Product Type:** | Monoclonal Antibody |
| **Clone:** | PM6/248 |
| **Isotype:** | IgG1 |
| **Quantity:** | 0.2 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 | ▪ | | | |
| Immunohistology - Frozen | | | ▪ | |
| Immunohistology - Paraffin | | | ▪ | |
| ELISA | | | ▪ | |
| Immunoprecipitation | | | ▪ | |
| Western Blotting | | ▪ | | |

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

**Target Species**

Human

**Species Cross Reactivity**

Reacts with: Baboon

**N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

**Product Form**

Purified IgG - liquid

**Preparation**

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

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| | supernatant |
| **Buffer Solution** | Phosphate buffered saline |
| **Preservative Stabilisers** | 0.09% Sodium Azide |
| **Carrier Free** | Yes |
| **Approx. Protein Concentrations** | IgG concentration 1.0 mg/ml |
| **Immunogen** | Human platelet plasma membranes. |
| **External Database Links** | **UniProt:**<br>P08514 Related reagents<br><br>**Entrez Gene:**<br>3674 ITGA2B Related reagents |
| **Synonyms** | GP2B, ITGAB |
| **RRID** | AB_324000 |
| **Fusion Partners** | Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line. |
| **Specificity** | **Mouse anti Human CD41 antibody, clone PM6/248** recognizes the human CD41 cell surface antigen, a ~140 kDa glycoprotein expressed by platelets and megakaryocytes. CD41 is also known as platelet glycoprotein IIb, and functions as a receptor for fibrinogen, fibronectin and vWF.<br><br>It has not been established if clone PM6/248 recognizes free CD41 or CD41 only when complexed with CD61. However, antibody binding is reduced in the presence of EDTA suggesting that the epitope recognized is dependent upon an intact CD41/61 complex. |
| **Flow Cytometry** | Use 10ul of the suggested working dilution to label $10^6$ cells or 100ul whole blood |
| **References** | 1. Hornby, E.J. *et al.* (1991) Activation of human platelets by exposure to a monoclonal antibody, PM6/248, to glycoprotein IIb-IIIa. Br J Haematol. 79 (2): 277-85.<br>2. Michelson, A.D. *et al*. (1995) A panel of platelet mAb for the study of haemostasis and thrombosis in baboons. Leucocyte Typing V. Oxford University Press p 1230-1231.<br>3. Zahler, S. *et al.* (1999) Acute cardiac inflammatory responses to postischemic reperfusion during cardiopulmonary bypass. Cardiovasc Res. 41: 722-30.<br>4. Massoudy, P. *et al.* (2001) Evidence for inflammatory responses of the lungs during coronary artery bypass grafting with cardiopulmonary bypass. Chest. 119: 31-6.<br>5. Wang, J.S. *et al.* (2005) Effects of exercise training and deconditioning on platelet aggregation induced by alternating shear stress in men. Arterioscler Thromb Vasc Biol. |

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6. Kahng, J. *et al.* (2008) Quantitative comparisons of antibody-binding sites of platelet glycoprotein IIb/IIIa in aplastic anemia and idiopathic thrombocytopenic purpura. Ann Clin Lab Sci. 38: 6-11.
7. Chae, H. *et al.* (2009) EDTA Inhibits the Binding of Clone 96.2C1, an Anti-CD41a Monoclonal Antibody, to the Platelets and Addition of Heparin and CaCl2 to the Antibody Neutralizes the EDTA-induced Inhibitory Effect Korean J Hematol 44: 42 - 6.
8. Maloney, S.F. *ety al.* (2010) P2Y12 or P2Y1 inhibitors reduce platelet deposition in a microfluidic model of thrombosis while apyrase lacks efficacy under flow conditions. Integr Biol (Camb). 2: 183-92.
9. Welsh, J.D. *et al.* (2012) Platelet-targeting sensor reveals thrombin gradients within blood clots forming in microfluidic assays and in mouse. J Thromb Haemost. 10 (11): 2344-53.
10. Foruzanmehr, M. *et al.* (2014) Nano-structure $TiO_2$ film coating on 316L stainless steel via sol-gel technique for blood compatibility improvement Nanomedicine J. 1 (3): 128-36.
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12. Miyazaki, K. *et al.* (2015) Immature platelet fraction measurement is influenced by platelet size and is a useful parameter for discrimination of macrothrombocytopenia. Hematology. 20 (10): 587-92.
13. Vučetić, D. *et al.* (2018) Flow cytometry analysis of platelet populations: usefulness for monitoringthe storage lesion in pooled buffy-coat platelet concentrates. Blood Transfus. 16 (1): 83-92.
14. Burdorf, L. *et al.* (2019) Thromboxane and histamine mediate PVR elevation during xenogeneic pig lung perfusion with human blood. Xenotransplantation. 26 (2): e12458.
15. Miura, S. *et al.* (2022) Effects of human TFPI and CD47 expression and selectin and integrin inhibition during GalTKO.hCD46 pig lung perfusion with human blood. Xenotransplantation. 29 (2): e12725.
16. Chaban, R. *et al.* (2023) Increased human complement pathway regulatory protein gene dose is associated with increased endothelial expression and prolonged survival during ex-vivo perfusion of GTKO pig lungs with human blood. Xenotransplantation. 30 (4): e12812.

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| **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.<br><br>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/MCA467G<br>10040 |
| **Regulatory** | For research purposes only |

# Related Products

## Recommended Secondary Antibodies

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| Rabbit Anti Mouse IgG (STAR12...) | RPE |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | HRP |
| Goat Anti Mouse IgG (STAR76...) | RPE |
| 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 (STAR77...) | HRP |
| Rabbit Anti Mouse IgG (STAR9...) | FITC |
| Goat Anti Mouse IgG (Fc) (STAR120...) | FITC, HRP |
| Rabbit Anti Mouse IgG (STAR13...) | HRP |

## Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)


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'M391952:211018'

**Printed on 28 Aug 2024**