

## Datasheet: MCA594

**BATCH NUMBER 1804**

<b>Description:</b>	MOUSE ANTI HUMAN CD42a
<b>Specificity:</b>	CD42a
<b>Other names:</b>	GPIX
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	FMC-25
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.25 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 - 1/200
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.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant.
<b>Buffer Solution</b>	Phosphate buffered saline.
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )

<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Peripheral blood mononuclear cells.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P14770</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">2815</a>    GP9    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_321697
<b>Specificity</b>	<p><b>Mouse anti Human CD42a antibody, clone FMC-25</b> recognizes human CD42a, also known as Platelet glycoprotein IX, Glycoprotein 9 or GP-IX. CD42a is a 177 amino acid, ~20kDa type I single pass transmembrane glycoprotein containing a single <a href="#">leucine-rich repeat containing N-terminal</a> domain and a single <a href="#">leucine-rich repeat containing C-terminal</a> domain.</p> <p>CD42a is expressed by platelets and megakaryocytes and forms a covalent complex with CD42c (GP-1b-beta), CD42b (GP-1b-alpha) and CD42d (platelet glycoprotein V) to create the platelet surface receptor for von Willebrand factor. Incubation of the intact von Willebrand receptor complex with clone FMC-25 does not appear to inhibit binding of von Willebrand factor to the receptor (<a href="#">Yan et al. 2011</a>). Defects in the GP1BB gene encoding human CD42a can lead to the inherited bleeding disorder Bernard-Soulier syndrome (<a href="#">Diz-Küçükkaya 2013</a>), characterized by prolonged bleeding times, thrombocytopenia and the appearance of giant platelets in the circulation (<a href="#">Johns et al. 2014</a>).</p> <p>Mouse anti human CD42a antibody, clone FMC-25 has been successfully used as a capture reagent for platelet-autoantibody complexes in the sera of patients presenting thrombocytopenia associated with antiphospholipid syndrome (<a href="#">Godeau et al. 1997</a>).</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label $1 \times 10^6$ cells in 100ul.
<b>Histology Positive Control Tissue</b>	Bone marrow
<b>References</b>	<ol style="list-style-type: none"> <li>Zola, H. <i>et al.</i> (1984) Monoclonal antibodies against antigens of the human platelet surface: preparation and properties. <a href="#">Pathology. 16 (1): 73-8.</a></li> <li>Berndt, M.C. <i>et al.</i> (1985) Molecular characterization of quinine/quinidine drug-dependent antibody platelet interaction using monoclonal antibodies. <a href="#">Blood. 66 (6): 1292-301.</a></li> <li>Berndt, M.C. <i>et al.</i> (1985) Purification and preliminary characterization of the glycoprotein Ib complex in the human platelet membrane. <a href="#">Eur J Biochem. 151 (3): 637-49.</a></li> <li>Berndt, M.C. <i>et al.</i> (1983) Additional glycoprotein defects in Bernard-Soulier's syndrome: confirmation of genetic basis by parental analysis. <a href="#">Blood. 62 (4): 800-7.</a></li> </ol>

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16. Ghevaert, C. *et al.* (2008) A nonsynonymous SNP in the ITGB3 gene disrupts the conserved membrane-proximal cytoplasmic salt bridge in the alphaIIb beta3 integrin and cosegregates dominantly with abnormal proplatelet formation and macrothrombocytopenia. [Blood. 111: 3407-14.](#)
17. Bub, C.B. *et al.* (2016) The use of a potential novel tool in virtual crossmatching for platelet transfusion in platelet refractoriness. [Vox Sang. 110 \(1\): 70-8.](#)
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**Storage**

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

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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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA594">https://www.bio-rad-antibodies.com/SDS/MCA594</a> 10040
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<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...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight@488</a> , <a href="#">DyLight@550</a> , <a href="#">DyLight@650</a> , <a href="#">DyLight@680</a> , <a href="#">DyLight@800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

<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://www.bio-rad-antibodies.com/datasheets)  
'M368500:200529'

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