

## Datasheet: MCA637GA

**BATCH NUMBER 163583**

<b>Description:</b>	MOUSE ANTI PIG IgM
<b>Specificity:</b>	IgM
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	K52 1C3
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.1 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	▪			
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA	▪			1/5000 - 1/100,000
Immunoprecipitation			▪	
Western Blotting			▪	

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

<b>Target Species</b>	Pig
<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>	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>	Porcine IgM
<b>Fusion Partners</b>	Spleen cells of immunised mice were fused with cells of the P3 - X63 - Ag 8.653 mouse myeloma line.
<b>Specificity</b>	<b>Mouse anti Pig IgM antibody, clone K52 1C3</b> recognizes porcine IgM heavy chain. No cross-reactivity with porcine IgA and IgG is seen in ELISA.
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label $1 \times 10^6$ cells in 100ul
<b>References</b>	<ol style="list-style-type: none"> <li>1. Andersen, J.K. <i>et al.</i> (1999) Systematic characterization of porcine ileal Peyer's patch, I. apoptosis-sensitive immature B cells are the predominant cell type. <a href="#">Immunology. 98 (4): 612-21.</a></li> <li>2. Baltés, N. <i>et al.</i> (2001) <i>Actinobacillus pleuropneumoniae</i> iron transport and urease activity: effects on bacterial virulence and host immune response. <a href="#">Infect Immun. 69 (1): 472-8.</a></li> <li>3. Leitão, A. <i>et al.</i> (2001) The non-haemadsorbing African swine fever virus isolate ASFV/NH/P68 provides a model for defining the protective anti-virus immune response. <a href="#">J Gen Virol. 82 (Pt 3): 513-23.</a></li> <li>4. Bailey, M. (2004) Effects of infection with transmissible gastroenteritis virus on concomitant immune responses to dietary and injected antigens. <a href="#">Clin Diagn Lab Immunol. 11: 337-43.</a></li> <li>5. Hamano, M. <i>et al.</i> (2007) Detection of antibodies to Japanese encephalitis virus in the wild boars in Hiroshima prefecture, Japan. <a href="#">Epidemiol Infect. 135: 974-7.</a></li> <li>6. Stepanova, H. <i>et al.</i> (2011) Association of attenuated mutants of <i>Salmonella enterica</i> serovar Enteritidis with porcine peripheral blood leukocytes. <a href="#">FEMS Microbiol Lett. 321: 37-42.</a></li> <li>7. Laycock, G. <i>et al.</i> (2012) A defined intestinal colonization microbiota for gnotobiotic pigs. <a href="#">Vet Immunol Immunopathol. 149: 216-24.</a></li> <li>8. Lewis MC <i>et al.</i> (2013) Dietary supplementation with Bifidobacterium lactis NCC2818 from weaning reduces local immunoglobulin production in lymphoid-associated tissues but increases systemic antibodies in healthy neonates. <a href="#">Br J Nutr. 110: 1243-52.</a></li> <li>9. Chen, F. <i>et al.</i> (2015) Generation of B Cell-Deficient Pigs by Highly Efficient CRISPR/Cas9-Mediated Gene Targeting. <a href="#">J Genet Genomics. 42 (8): 437-44.</a></li> <li>10. Seele, J. <i>et al.</i> (2015) The immunoglobulin M-degrading enzyme of <i>Streptococcus suis</i>, IdeS<sub>suis</sub>, is a highly protective antigen against serotype 2. <a href="#">Vaccine. 33 (19): 2207-12.</a></li> <li>11. Pasternak, J.A. <i>et al.</i> (2015) Oral antigen exposure in newborn piglets circumvents induction of oral tolerance in response to intraperitoneal vaccination in later life. <a href="#">BMC Vet Res. 11: 350.</a></li> <li>12. Rahe, M.C. &amp; Murtaugh, M.P. (2017) Interleukin-21 Drives Proliferation and Differentiation of Porcine Memory B Cells into Antibody Secreting Cells. <a href="#">PLoS One. 12 (1): e0171171.</a></li> <li>13. Rungelrath, V. <i>et al.</i> (2018) IgM cleavage by <i>Streptococcus suis</i>. reduces IgM bound to the bacterial surface and is a novel complement evasion mechanism. <a href="#">Virulence. 9 (1):</a></li> </ol>

[1314-1337.](#)

14. Buermann, A. *et al.* (2018) Pigs expressing the human inhibitory ligand PD-L1 (CD 274) provide a new source of xenogeneic cells and tissues with low immunogenic properties. [Xenotransplantation. 25 \(5\): e12387.](#)

15. Corsaut, L. *et al.* (2020) Field Study on the Immunological Response and Protective Effect of a Licensed Autogenous Vaccine to Control *Streptococcus suis* Infections in Post-Weaned Piglets. [Vaccines \(Basel\). 8 \(3\): 384.](#)

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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.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA637GA>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)  
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)  
Goat Anti Mouse IgG (STAR70...) [FITC](#)  
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)  
Goat Anti Mouse IgG (STAR76...) [RPE](#)  
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 (STAR13...) [HRP](#)  
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

### 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)

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