

Datasheet: MCA637GA

BATCH NUMBER 170465

Description:	MOUSE ANTI PIG IgM
Specificity:	IgM
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	K52 1C3
Isotype:	IgG1
Quantity:	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.

	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.

Target Species	Pig
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	0.09% Sodium Azide (NaN ₃)
Carrier Free	Yes

Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Porcine IgM
Fusion Partners	Spleen cells of immunised mice were fused with cells of the P3 - X63 - Ag 8.653 mouse myeloma line.
Specificity	Mouse anti Pig IgM antibody, clone K52 1C3 recognizes porcine IgM heavy chain. No cross-reactivity with porcine IgA and IgG is seen in ELISA.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul
References	<ol style="list-style-type: none"> 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. Immunology. 98 (4): 612-21. Baltes, N. <i>et al.</i> (2001) <i>Actinobacillus pleuropneumoniae</i> iron transport and urease activity: effects on bacterial virulence and host immune response. Infect Immun. 69 (1): 472-8. 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. J Gen Virol. 82 (Pt 3): 513-23. Bailey, M. (2004) Effects of infection with transmissible gastroenteritis virus on concomitant immune responses to dietary and injected antigens. Clin Diagn Lab Immunol. 11: 337-43. Hamano, M. <i>et al.</i> (2007) Detection of antibodies to Japanese encephalitis virus in the wild boars in Hiroshima prefecture, Japan. Epidemiol Infect. 135: 974-7. Stepanova, H. <i>et al.</i> (2011) Association of attenuated mutants of <i>Salmonella enterica</i> serovar Enteritidis with porcine peripheral blood leukocytes. FEMS Microbiol Lett. 321: 37-42. Laycock, G. <i>et al.</i> (2012) A defined intestinal colonization microbiota for gnotobiotic pigs. Vet Immunol Immunopathol. 149: 216-24. Lewis MC <i>et al.</i> (2013) Dietary supplementation with <i>Bifidobacterium lactis</i> NCC2818 from weaning reduces local immunoglobulin production in lymphoid-associated tissues but increases systemic antibodies in healthy neonates. Br J Nutr. 110: 1243-52. Chen, F. <i>et al.</i> (2015) Generation of B Cell-Deficient Pigs by Highly Efficient CRISPR/Cas9-Mediated Gene Targeting. J Genet Genomics. 42 (8): 437-44. Seele, J. <i>et al.</i> (2015) The immunoglobulin M-degrading enzyme of <i>Streptococcus suis</i>, IdeSsuis, is a highly protective antigen against serotype 2. Vaccine. 33 (19): 2207-12. 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. BMC Vet Res. 11: 350. Rahe, M.C. & Murtaugh, M.P. (2017) Interleukin-21 Drives Proliferation and Differentiation of Porcine Memory B Cells into Antibody Secreting Cells. PLoS One. 12 (1): e0171171. 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. Virulence. 9 (1):

[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.](#)

16. Guo, S. *et al.* (2025) An African swine fever virus-specific antibody reactome reveals antigens as potential candidates for vaccine development. [J Virol. 99 \(9\): e0047825.](#)

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.

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/MCA637GA>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...) [HRP](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG (STAR77...) [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](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

Recommended Negative Controls

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

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

'M381852:210512'

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