

Datasheet: MCA2317A647

Description:	MOUSE ANTI PIG MACROPHAGES:Alexa Fluor® 647
Specificity:	MACROPHAGES
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	BA4D5
Isotype:	IgG2b
Quantity:	100 TESTS/1ml

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 (1)	▪			Neat

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.

(1) Membrane permeabilization is required for this application. The use of Leucoperm (Product Code [BUF09](#)) is recommended for this purpose.

Target Species	Pig		
Product Form	Purified IgG conjugated to Alexa Fluor® 647 - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Alexa Fluor®647	650	665
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) 1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml		

Immunogen	Porcine alveolar macrophages.
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse SP2/0 mouse myeloma cell line.
Specificity	<p>Mouse anti Pig Macrophages antibody, clone BA4D5 recognizes porcine cells of the monocyte/macrophage lineage. Expression of the antigen is increased with maturation, with higher expression on peritoneal and alveolar macrophages.</p> <p>Some expression has also been observed on peripheral blood lymphocytes.</p> <p>The antigen recognized by clone BA4D5 has a broad tissue distribution and this antibody stains macrophages in a range of tissues, including the thymus, spleen periarteriolar lymphoid sheath (PALS), spleen red pulp and the Peyer's patches. Expression has also been reported on some non-haematopoietic cells including endothelial cells.</p> <p>It is believed that clone BA4D5 may be specific for porcine CD68 (Poulsen et al. 2016) although the protein recognized by this antibody has not yet been fully characterized. The protein is expressed on the cell surface, although it is most abundantly expressed in the cytoplasm.</p>
Flow Cytometry	Use 10µl of the suggested working dilution to 1x10 ⁶ cells in 100µl
References	<ol style="list-style-type: none"> 1. Luechtenborg, B. <i>et al.</i> (2008) Function of scavenger receptor class A type I/II is not important for smooth muscle foam cell formation. Eur J Cell Biol. 87: 91-9. 2. Ezquerro, A. <i>et al.</i> (2009) Porcine myelomonocytic markers and cell populations. Dev Comp Immunol. 33 (3): 284-98. 3. Muscari C <i>et al.</i> (2010) Comparison between Culture Conditions Improving Growth and Differentiation of Blood and Bone Marrow Cells Committed to the Endothelial Cell Lineage. Biol Proced Online. 12 (1): 9023. 4. Fujita M <i>et al.</i> (2013) Technique of endoscopic biopsy of islet allografts transplanted into the gastric submucosal space in pigs. Cell Transplant. 22 (12): 2335-44. 5. Sohn, E.H. <i>et al.</i> (2015) Allogenic iPSC-derived RPE cell transplants induce immune response in pigs: a pilot study. Sci Rep. 5: 11791. 6. Liu, G. <i>et al.</i> (2015) Influenza A Virus Panhandle Structure is Directly Involved in RIG-I Activation and IFN Induction. J Virol. pii: JVI.00232-15. 7. Poulsen, C.B. <i>et al.</i> (2016) Treatment with a human recombinant monoclonal IgG antibody against oxidized LDL in atherosclerosis-prone pigs reduces cathepsin S in coronary lesions. Int J Cardiol. 215: 506-515. 8. Rayat, G.R. <i>et al.</i> (2016) First update of the International Xenotransplantation Association consensus statement on conditions for undertaking clinical trials of porcine islet products in type 1 diabetes - Chapter 3: Porcine islet product manufacturing and release testing criteria. Xenotransplantation. 23 (1): 38-45. 9. Wang, L. <i>et al.</i> (2017) Porcine alveolar macrophage polarization is involved in inhibition of porcine reproductive and respiratory syndrome virus (PRRSV) replication. J Vet Med Sci. 79 (11): 1906-15. 10. Porras, A.M. <i>et al.</i> (2018) Creation of disease-inspired biomaterial environments to

mimic pathological events in early calcific aortic valve disease. [Proc Natl Acad Sci U S A. 115 \(3\): E363-E371.](#)

11. Maciag, S.S. *et al.* (2022) On the influence of the source of porcine colostrum in the development of early immune ontogeny in piglets. [Sci Rep. 12 \(1\): 15630.](#)

12. dos Santos, M.C. *et al.* (2023) Effect of yeast extracted β -glucans on the immune response and reproductive performance of gilts in the adaptation, gestation, and lactation periods [Livestock Science. 275: 105289.](#)

13. Haach, V. *et al.* (2023) A polyvalent virosomal influenza vaccine induces broad cellular and humoral immunity in pigs. [Virol J. 20 \(1\): 181.](#)

14. Petitpas, K. *et al.* (2022) Genetic modifications designed for xenotransplantation attenuate sialoadhesin-dependent binding of human erythrocytes to porcine macrophages. [Xenotransplantation. 29 \(6\): e12780.](#)

15. Forner, R. *et al.* (2021) Distribution difference of colostrum-derived B and T cells subsets in gilts and sows. [PLoS One. 16 \(5\): e0249366.](#)

Further Reading	1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. Vet Res. 39: 54.
Storage	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
Guarantee	12 months from date of despatch
Acknowledgements	This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchased product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or outlicensing@thermofisher.com
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA2317A647
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA691A647\)](#)

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
'M442077:250528'

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