

Datasheet: MCA2315A647

BATCH NUMBER 173904

Description:	MOUSE ANTI PIG CD107a:Alexa Fluor® 647
Specificity:	CD107a
Other names:	LAMP-1
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	4E9/11
Isotype:	IgG1
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	0.09% sodium azide (NaN ₃)		
Stabilisers	1% bovine serum albumin		

Approx. Protein Concentrations	IgG concentration 0.05mg/ml
Immunogen	Porcine alveolar macrophages.
RRID	AB_808377
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse X63-Ag.8.653 myeloma cell line.
Specificity	Mouse anti Pig CD107a, clone 4E9/11 recognizes porcine CD107a, a cell surface antigen, also known as lysosomal-associated membrane protein-1 or LAMP-1. CD107a is a type 1 single pass transmembrane glycoprotein expressed on macrophages and more weakly on monocytes and granulocytes.
Flow Cytometry	Use 10µl of the suggested working dilution to label 1x10 ⁶ cells in 100µl
References	1. Bullido, R. <i>et al.</i> (1997) Monoclonal antibodies specific for porcine monocytes/macrophages: macrophage heterogeneity in the pig evidenced by the expression of surface antigens. Tissue Antigens. 49 (4): 403-13. 2. Carrillo, A. <i>et al.</i> (2002) Isolation and characterization of immortalized porcine aortic endothelial cell lines. Vet Immunol Immunopathol. 89 (1-2): 91-8. 3. Domenech, N. <i>et al.</i> (2003) Identification of porcine macrophages with monoclonal antibodies in formalin-fixed, paraffin-embedded tissues. Vet Immunol Immunopathol. 94 (1-2): 77-81. 4. Sánchez-Torres, C. <i>et al.</i> (2003) Expression of porcine CD163 on monocytes/macrophages correlates with permissiveness to African swine fever infection. Arch Virol. 148 (12): 2307-23. 5. Toka, F.N. <i>et al.</i> (2009) Natural killer cell dysfunction during acute infection with foot-and-mouth disease virus. Clin Vaccine Immunol. 16: 1738-49. 6. Toka, F.N. <i>et al.</i> (2009) Activation of porcine natural killer cells and lysis of foot-and-mouth disease virus infected cells. J Interferon Cytokine Res. 29 (3): 179-92. 7. Mair, K.H. <i>et al.</i> (2013) Porcine CD8αdim/-NKp46high NK cells are in a highly activated state. Vet Res. 44: 13. 8. Cruz, J.L. <i>et al.</i> (2013) Alphacoronavirus Protein 7 Modulates Host Innate Immune Response J Virol. 87: 9754-67. 9. Bullers, S.J. <i>et al.</i> (2014) The human tissue-biomaterial interface: a role for PPARγ-dependent glucocorticoid receptor activation in regulating the CD163+ M2 macrophage phenotype. Tissue Eng Part A. 20: 2390-401. 10. van Hout, G.P. <i>et al.</i> (2015) Invasive surgery reduces infarct size and preserves cardiac function in a porcine model of myocardial infarction. J Cell Mol Med. 19 (11): 2655-63. 11. Talker, S.C. <i>et al.</i> (2015) Magnitude and kinetics of multifunctional CD4+ and CD8β+ T cells in pigs infected with swine influenza A virus. Vet Res. 46: 52. 12. Bongoni, A.K. <i>et al.</i> (2015) Porcine extrahepatic vascular endothelial asialoglycoprotein receptor 1 mediates xenogeneic platelet phagocytosis <i>in vitro</i> and in human-to-pig <i>ex vivo</i> xenoperfusion. Transplantation. 99 (4): 693-701.

13. Chand, D.J. *et al.* (2026) Intradermal administration of a novel adjuvant cyclopolyphosphazene (CPZ-75B) in pigs induces innate immune responses comparable to poly[di(sodiumcarboxylatoethylphenoxy)phosphazene] (PCEP). [Vet Immunol Immunopathol. 292: 111061.](#)
14. Dash, R. *et al.* (2018) Dose-Dependent Cardioprotection of Moderate (32°C) Versus Mild (35°C) Therapeutic Hypothermia in Porcine Acute Myocardial Infarction. [JACC Cardiovasc Interv. 11 \(2\): 195-205.](#)
15. Nishimura, Y. *et al.* (2023) Application of polyglycolic acid sheets and basic fibroblast growth factor to prevent esophageal stricture after endoscopic submucosal dissection in pigs. [J Gastroenterol. 58 \(11\): 1094-104.](#)
16. Álvarez, B. *et al.* (2023) Porcine Macrophage Markers and Populations: An Update. [Cells. 12 \(16\): 2103.](#)

Further Reading	1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. Vet Res. 39: 54.
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. This product is photosensitive and should be protected from light.
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 purchase 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/MCA2315A647
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA928A647\)](#)

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

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