

Datasheet: MCA2315A647

**BATCH NUMBER 170179**

<b>Description:</b>	MOUSE ANTI PIG CD107a:Alexa Fluor® 647
<b>Specificity:</b>	CD107a
<b>Other names:</b>	LAMP-1
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	4E9/11
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://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.**

<b>Target Species</b>	Pig		
<b>Product Form</b>	Purified IgG conjugated to Alexa Fluor® 647- liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	Alexa Fluor®647	650	665
<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</b>	0.09% sodium azide (NaN <sub>3</sub> )		
<b>Stabilisers</b>	1% bovine serum albumin		

<b>Approx. Protein Concentrations</b>	IgG concentration 0.05mg/ml
<b>Immunogen</b>	Porcine alveolar macrophages.
<b>RRID</b>	AB_808377
<b>Fusion Partners</b>	Spleen cells from immunized BALB/c mice were fused with cells of the mouse X63-Ag.8.653 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Pig CD107a, clone 4E9/11</b> recognizes porcine CD107a, a cell surface antigen, also known as lysosomal-associated membrane protein-1 or LAMP-1.</p> <p>CD107a is a type 1 single pass transmembrane glycoprotein expressed on macrophages and more weakly on monocytes and granulocytes.</p>
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100µl
<b>References</b>	<ol style="list-style-type: none"> <li>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. <a href="#">Tissue Antigens. 49 (4): 403-13.</a></li> <li>2. Carrillo, A. <i>et al.</i> (2002) Isolation and characterization of immortalized porcine aortic endothelial cell lines. <a href="#">Vet Immunol Immunopathol. 89 (1-2): 91-8.</a></li> <li>3. Domenech, N. <i>et al.</i> (2003) Identification of porcine macrophages with monoclonal antibodies in formalin-fixed, paraffin-embedded tissues. <a href="#">Vet Immunol Immunopathol. 94 (1-2): 77-81.</a></li> <li>4. Sánchez-Torres, C. <i>et al.</i> (2003) Expression of porcine CD163 on monocytes/macrophages correlates with permissiveness to African swine fever infection. <a href="#">Arch Virol. 148 (12): 2307-23.</a></li> <li>5. Toka, F.N. <i>et al.</i> (2009) Natural killer cell dysfunction during acute infection with foot-and-mouth disease virus. <a href="#">Clin Vaccine Immunol. 16: 1738-49.</a></li> <li>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. <a href="#">J Interferon Cytokine Res. 29 (3): 179-92.</a></li> <li>7. Mair, K.H. <i>et al.</i> (2013) Porcine CD8αdim/-NKp46high NK cells are in a highly activated state. <a href="#">Vet Res. 44: 13.</a></li> <li>8. Cruz, J.L. <i>et al.</i> (2013) Alphacoronavirus Protein 7 Modulates Host Innate Immune Response <a href="#">J Virol. 87: 9754-67.</a></li> <li>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. <a href="#">Tissue Eng Part A. 20: 2390-401.</a></li> <li>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. <a href="#">J Cell Mol Med. 19 (11): 2655-63.</a></li> <li>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. <a href="#">Vet Res. 46: 52.</a></li> <li>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. <a href="#">Transplantation. 99 (4): 693-701.</a></li> </ol>

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.](#)

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**Further Reading** 1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. [Vet Res. 39: 54.](#)

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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. This product is photosensitive and should be protected from light.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2315A647>

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**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](http://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](https://bio-rad-antibodies.com/datasheets)

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