

## Datasheet: MCA2315F

<b>Description:</b>	MOUSE ANTI PIG CD107a:FITC
<b>Specificity:</b>	CD107a
<b>Other names:</b>	LAMP-1
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	4E9/11
<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 (1)	▪			Neat

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

**(1) Membrane permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.**

<b>Target Species</b>	Pig		
<b>Product Form</b>	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	FITC	490	525
<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		
<b>Stabilisers</b>	1% Bovine Serum Albumin		
<b>Approx. Protein</b>	IgG concentration 0.1 mg/ml		

## Concentrations

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**Immunogen** Porcine alveolar macrophages.

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**RRID** AB\_566439

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**Fusion Partners** Spleen cells from immunised BALB/c mice were fused with cells of the mouse X63-Ag.8.653 myeloma cell line.

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**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.

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**Flow Cytometry** Use 10ul of the suggested working dilution to label  $1 \times 10^6$  cells in 100ul.

## References

1. Bullido, R. *et al.* (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. *et al.* (2002) Isolation and characterization of immortalized porcine aortic endothelial cell lines. [Vet Immunol Immunopathol. 89 \(1-2\): 91-8.](#)
3. Domenech, N. *et al.* (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. *et al.* (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. *et al.* (2009) Natural killer cell dysfunction during acute infection with foot-and-mouth disease virus. [Clin Vaccine Immunol. 16: 1738-49.](#)
6. Bullers, S.J. *et al.* (2014) The human tissue-biomaterial interface: a role for PPAR $\gamma$ -dependent glucocorticoid receptor activation in regulating the CD163<sup>+</sup> M2 macrophage phenotype. [Tissue Eng Part A. 20: 2390-401.](#)
7. Mair, K.H. *et al.* (2013) Porcine CD8 $\alpha$ dim<sup>-</sup>/NKp46<sup>high</sup> NK cells are in a highly activated state. [Vet Res. 44: 13.](#)
8. Cruz, J.L. *et al.* (2013) Alphacoronavirus Protein 7 Modulates Host Innate Immune Response [J Virol. 87: 9754-67.](#)
9. van Hout, G.P. *et al.* (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.](#)
10. Toka, F.N. *et al.* (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.](#)
11. 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.](#)
12. Talker, S.C. *et al.* (2015) Magnitude and kinetics of multifunctional CD4<sup>+</sup> and CD8 $\beta$ <sup>+</sup> T cells in pigs infected with swine influenza A virus. [Vet Res. 46: 52.](#)

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## Further Reading

1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update.

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**Storage** Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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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: 10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

<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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