

Datasheet: MCA2311F

Description:	MOUSE ANTI PIG CD163:FITC
Specificity:	CD163
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	2A10/11
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	■			Neat - 1/10

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.

Target Species	Pig		
Product Form	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC)		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
Preparation	Purified IgG prepared by affinity chromatography on Protein A from		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml		
Immunogen	Porcine alveolar macrophages.		
External Database Links	UniProt: Q2VL90 Related reagents Entrez Gene: 397031 CD163 Related reagents		

Synonyms	M130
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the X63-Ag.8.653 myeloma cell line.
Specificity	Mouse anti Pig CD163 antibody, clone 2A10/11 recognises porcine CD163, a ~120 kDa single pass type 1 transmembrane cell surface glycoprotein expressed on cells of the monocyte/macrophage lineage. The expression levels of CD163 vary during the course of macrophage differentiation. The highest levels of CD163 expression are found on tissue macrophages but bone marrow derived cells are CD163 negative. Expression of CD163 on peripheral blood monocytes varies between about 5% and 50% depending on the donor (Sanchez et al. 1999). Mouse anti Pig CD163, clone 2A10/11 is reported to inhibit both African swine fever infection and viral particle binding to alveolar macrophages in a dose-dependent manner (Sanchez-Torres et al. 2003).
Flow Cytometry	Use 10ul of the suggested working dilution to 1x10 ⁶ cells in 100ul.
References	1. Yang, P. <i>et al.</i> (2002) Immune cells in the porcine retina: distribution, characterization and morphological features. Invest Ophthalmol Vis Sci. 43 (5): 1488-92. 2. Thacker, E. <i>et al.</i> (2001) Summary of workshop findings for porcine myelomonocytic markers. Vet Immunol Immunopathol. 80 (1-2): 93-109. 3. 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. 4. Gómez del Moral M <i>et al.</i> (1999) African swine fever virus infection induces tumor necrosis factor alpha production: implications in pathogenesis. J Virol. 73 (3): 2173-80. 5. De Baere, M.I. <i>et al.</i> (2012) Interaction of the European genotype porcine reproductive and respiratory syndrome virus (PRRSV) with sialoadhesin (CD169/Siglec-1) inhibits alveolar macrophage phagocytosis. Vet Res. 43: 47. 6. Prather, R.S. <i>et al.</i> (2013) An Intact Sialoadhesin (Sn/SIGLEC1/CD169) Is Not Required for Attachment/Internalization of the Porcine Reproductive and Respiratory Syndrome Virus. J Virol. 87: 9538-46. 7. Delrue, I. <i>et al.</i> (2010) Susceptible cell lines for the production of porcine reproductive and respiratory syndrome virus by stable transfection of sialoadhesin and CD163. BMC Biotechnol. 10: 48. 8. Katchman, H. <i>et al.</i> (2008) Embryonic porcine liver as a source for transplantation: advantage of intact liver implants over isolated hepatoblasts in overcoming homeostatic inhibition by the quiescent host liver. Stem Cells. 26: 1347-55. 9. Moreno, S. <i>et al.</i> (2010) Porcine monocyte subsets differ in the expression of CCR2 and in their responsiveness to CCL2. Vet Res. 41: 76. 10. Ondrackova, P. <i>et al.</i> (2010) Porcine mononuclear phagocyte subpopulations in the lung, blood and bone marrow: dynamics during inflammation induced by <i>Actinobacillus pleuropneumoniae</i>. Vet Res. 41: 64. 11. Urbieto Caceres, V.H. <i>et al.</i> (2011) Early experimental hypertension preserves the myocardial microvasculature but aggravates cardiac injury distal to chronic coronary artery obstruction. Am J Physiol Heart Circ Physiol. 300: H693-701. 12. Das, P.B. <i>et al.</i> (2010) The minor envelope glycoproteins GP2a and GP4 of porcine reproductive and respiratory syndrome virus interact with the receptor CD163. J Virol. 84: 1731-40. 13. Gimeno, M. <i>et al.</i> (2011) Cytokine profiles and phenotype regulation of antigen presenting cells by genotype-I porcine reproductive and respiratory syndrome virus isolates. Vet Res. 42: 9. 14. Costa-Hurtado, M. <i>et al.</i> (2013) Changes in macrophage phenotype after infection of pigs with

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 16. Popescu, L. *et al.* (2017) Genetically edited pigs lacking CD163 show no resistance following infection with the African swine fever virus isolate, Georgia 2007/1. [Virology. 501: 102-6.](#)
 17. Stenfeldt, C. *et al.* (2014) Morphologic and phenotypic characteristics of myocarditis in two pigs infected by foot-and mouth disease virus strains of serotypes O or A. [Acta Vet Scand. 56: 42.](#)
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 30. Singleton, H. *et al.* (2016) Establishing Porcine Monocyte-Derived Macrophage and Dendritic Cell Systems for Studying the Interaction with PRRSV-1. [Front Microbiol. 7: 832.](#)
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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.](#)

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.

Shelf Life	18 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 \(MCA928F\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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