

## Datasheet: MCA1218A647

**BATCH NUMBER 161129**

<b>Description:</b>	MOUSE ANTI PIG CD14:Alexa Fluor® 647
<b>Specificity:</b>	CD14
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MIL2
<b>Isotype:</b>	IgG2b
<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	▪			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. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Pig		
<b>Species Cross Reactivity</b>	Reacts with: Human <b>N.B.</b> Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.		
<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		
<b>Buffer Solution</b>	Phosphate buffered saline		

<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05 mg/ml.
<b>Immunogen</b>	Porcine peripheral blood lymphocytes.
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">A2SW51</a> <a href="#">Related reagents</a>
<b>Fusion Partners</b>	Spleen cells from immunized Balb/c mice were fused with cells from the P2-X63-Ag.653 mouse myeloma.
<b>Specificity</b>	<p><b>Mouse anti Pig CD14, clone MIL2</b> recognizes porcine CD14. Clone MIL2 was clustered as porcine CD14 at the Third International Workshop on Swine Leukocyte Differentiation Antigens (<a href="#">Haverson <i>et al.</i> 2001</a>). Mouse anti Pig CD14, clone MIL2 immunoprecipitates a protein of ~50 kDa consistent with the expected apparent molecular weight of porcine CD14, and demonstrates the expected CD14 profile by dual labelling and competition assays. Further, pre-incubation of peripheral blood monocytes with MIL2 inhibits the binding of FITC labelled LPS, consistent with masking the CD14 LPS binding site (<a href="#">Thacker <i>et al.</i> 2001</a>).</p> <p>Mouse anti pig CD14, clone MIL2 demonstrates staining of both monocytes and neutrophils in peripheral blood by flow cytometry with a similar expression pattern to the anti human CD14 clone Tük4, lymphocytes and eosinophils are negative for MIL2 staining (<a href="#">Zelnickova <i>et al.</i> 2007</a>). Cloning and characterization of porcine CD14 indicates a high degree of both functional and structural conservation when compared to CD14 from other mammalian species, the gene maps to chromosome 2 and is expressed on a wide range of tissues in a manner consistent with expression on myeloid cells. (<a href="#">Petersen <i>et al.</i> 2007</a>, <a href="#">Sanz <i>et al.</i> 2007</a>).</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>Hauet, T. <i>et al.</i> (2000) Trimetazidine reduces renal dysfunction by limiting the cold ischemia/reperfusion injury in autotransplanted pig kidneys. <a href="#">J Am Soc Nephrol. 11: 138-48.</a></li> <li>Thacker, E. <i>et al.</i> (2001) Summary of workshop findings for porcine myelomonocytic markers. <a href="#">Vet Immunol Immunopathol. 80 (1-2): 93-109.</a></li> <li>Thorgersen, E.B. <i>et al.</i> (2010) CD14 inhibition efficiently attenuates early inflammatory and hemostatic responses in <i>Escherichia coli</i> sepsis in pigs. <a href="#">FASEB J. 24: 712-22.</a></li> <li>Goujon, J.M. <i>et al.</i> (2000) Influence of cold-storage conditions on renal function of autotransplanted large pig kidneys. <a href="#">Kidney Int. 58: 838-50.</a></li> <li>Li, Y. <i>et al.</i> (2014) Identification of apoptotic cells in the thymus of piglets infected with highly pathogenic porcine reproductive and respiratory syndrome virus. <a href="#">Virus Res. 189: 29-33.</a></li> <li>Summerfield, A. <i>et al.</i> (2003) Porcine peripheral blood dendritic cells and natural</li> </ol>

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- Further Reading**
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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.

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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/MCA1218A647>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

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

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