

## Datasheet: MCA1220GA

**BATCH NUMBER 163787**

<b>Description:</b>	MOUSE ANTI PIG CD11R1
<b>Specificity:</b>	CD11R1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MIL4
<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	▪			1/25 - 1/200
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

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.

<b>Target Species</b>	Pig
<b>Species Cross Reactivity</b>	<p>Reacts with: Human, Guinea Pig</p> <p><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.</p>
<b>Product Form</b>	Purified IgG - liquid
<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 Stabilisers</b>	0.09% sodium azide (NaN <sub>3</sub> )
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1 mg/ml
<b>Immunogen</b>	Porcine Lamina Propria Leucocytes.
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the P3 - X63 - Ag.653 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Pig CD11R1, clone MIL4</b> recognizes the porcine cell surface antigen classified as CD11R1 at the Third International Workshop on Swine Leukocyte Differentiation Antigens (<a href="#">Haverson et al. 2001</a>). Mouse anti Pig CD11R1, clone MIL4 stains porcine eosinophils, a subset of neutrophils and NK cells, it does not stain monocytes or macrophages (<a href="#">Haverson et al. 1994</a>).</p> <p>Mouse anti Pig CD11R1, clone MIL4 immunoprecipitates a band corresponding to integrin β2 (CD18) of ~95kDa, in common with all other anti CD11 antibodies tested at the workshop and also a band of ~165 kDa corresponding to CD11R1, in a manner identical to the cross reactive anti human CD11b clone, TMG6-5 from peripheral blood mononuclear cell lysates suggesting that porcine CD11R1 is analogous to human CD11b (<a href="#">Dominguez et al. 2001</a>)</p> <p>Mouse anti pig CD11R1, clone MIL4 is cross reactive with the guinea pig and is useful for the identification of a population of guinea pig natural killer cells, Kurloff cells (<a href="#">Takizawa et al. 2004</a>) (<a href="#">Eremin et al. 1980</a>).</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>Haverson, K. <i>et al.</i> (1994) Characterization of monoclonal antibodies specific for monocytes, macrophages and granulocytes from porcine peripheral blood and mucosal tissues. <a href="#">J Immunol Methods. 170 (2): 233-45.</a></li> <li>Domínguez, J. <i>et al.</i> (2001) Workshop studies on monoclonal antibodies in the myeloid panel with CD11 specificity. <a href="#">Vet Immunol Immunopathol. 80 (1-2): 111-9.</a></li> <li>Inman, C.F. <i>et al.</i> (2010) Dendritic cells interact with CD4 T cells in intestinal mucosa. <a href="#">J Leukoc Biol. 88: 571-8.</a></li> <li>Cheng, Q. <i>et al.</i> (2010) Administered CpG oligodeoxynucleotide induces mRNA expression of CXC and CC chemokines at the intestinal mucosa and PBMCs in piglets. <a href="#">Int Immunopharmacol. 10: 611-8.</a></li> <li>Ordway, D. <i>et al.</i> (2007) The cellular immune response to <i>Mycobacterium tuberculosis</i> infection in the guinea pig. <a href="#">J Immunol. 179: 2532-41.</a></li> <li>Shang, S. <i>et al.</i> (2011) Activities of TMC207, rifampin, and pyrazinamide against <i>Mycobacterium tuberculosis</i> infection in guinea pigs. <a href="#">Antimicrob Agents Chemother. 55</a></li> </ol>

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8. Suda, Y. *et al.* (2014) Immunobiotic *Lactobacillus jensenii* as immune-health promoting factor to improve growth performance and productivity in post-weaning pigs. [BMC Immunol. 15: 24.](#)

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10. Auray G *et al.* (2016) Characterization and Transcriptomic Analysis of Porcine Blood Conventional and Plasmacytoid Dendritic Cells Reveals Striking Species-Specific Differences. [J Immunol. Nov 11. pii: 1600672. \[Epub ahead of print\]](#)

11. Yeruva, L. *et al.* (2015) Chlamydial variants differ in ability to ascend the genital tract in the guinea pig model of chlamydial genital infection. [Infect Immun. 83 \(8\): 3176-83.](#)

12. Sautter, C.A. *et al.* (2018) Phenotypic and functional modulations of porcine macrophages by interferons and interleukin-4. [Dev Comp Immunol. 84: 181-92.](#)

13. Ferret-Bernard, S. *et al.* (2020) Maternal Supplementation of Food Ingredient (Prebiotic) or Food Contaminant (Mycotoxin) Influences Mucosal Immune System in Piglets. [Nutrients. 12 \(7\): 2115.](#)

14. Iida, H. *et al.* (2019) Paraimmunobiotic Bifidobacteria Modulate the Expression Patterns of Peptidoglycan Recognition Proteins in Porcine Intestinal Epitheliocytes and Antigen Presenting Cells. [Cells. 8\(8\):891.](#)

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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.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1220GA>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)

Goat Anti Mouse IgG (STAR70...) [FITC](#)

Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)  
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)  
Goat Anti Mouse IgG (STAR76...) [RPE](#)  
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),  
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),  
[FITC](#), [HRP](#)  
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)  
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

## Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

<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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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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