

Datasheet: MCA2317GA

Description:	MOUSE ANTI PIG MACROPHAGES
Specificity:	MACROPHAGES
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	BA4D5
Isotype:	IgG2b
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 (1)	▪			1/50 - 1/100
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting (2)	▪			
Immunofluorescence	▪			

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 permeabilization is required for this application. Bio-Rad recommends the use of Leucoperm (BUF09) for this purpose.**

(2) **BA4D5 recognizes a 105kDa antigen in pig macrophage lysates under non-reducing conditions.**

Target Species	Pig
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative	0.09% Sodium Azide (NaN ₃)

Stabilisers

Carrier Free Yes

Approx. Protein Concentrations IgG concentration 1.0 mg/ml

Immunogen Porcine alveolar macrophages.

Fusion Partners Spleen cells from immunized BALB/c mice were fused with cells of the mouse SP2/0 mouse myeloma cell line.

Specificity **Mouse anti Pig Macrophages antibody, clone BA4D5** recognizes porcine cells of the monocyte/macrophage lineage. Expression of the antigen is increased with maturation, with higher expression on peritoneal and alveolar macrophages.

Some expression has also been observed on peripheral blood lymphocytes.

The antigen recognized by clone BA4D5 has a broad tissue distribution and this antibody stains macrophages in a range of tissues, including the thymus, spleen periarteriolar lymphoid sheath (PALS), spleen red pulp and the Peyer's patches. Expression has also been reported on some non-haematopoietic cells including endothelial cells.

It is believed that clone BA4D5 may be specific for porcine CD68 ([Poulsen *et al.* 2016](#)) although the protein recognized by this antibody has not yet been fully characterized. The protein is expressed on the cell surface, although it is most abundantly expressed in the cytoplasm.

Flow Cytometry Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.

References

1. Luechtenborg, B. *et al.* (2008) Function of scavenger receptor class A type I/II is not important for smooth muscle foam cell formation. [Eur J Cell Biol. 87: 91-9.](#)
2. Fujita M *et al.* (2013) Technique of endoscopic biopsy of islet allografts transplanted into the gastric submucosal space in pigs. [Cell Transplant. 22 \(12\): 2335-44.](#)
3. Muscari C *et al.* (2010) Comparison between Culture Conditions Improving Growth and Differentiation of Blood and Bone Marrow Cells Committed to the Endothelial Cell Lineage. [Biol Proced Online. 12 \(1\): 9023.](#)
4. Liu, G. *et al.* (2015) Influenza A Virus Panhandle Structure is Directly Involved in RIG-I Activation and IFN Induction. [J Virol. pii: JVI.00232-15.](#)
5. Ezquerra, A. *et al.* (2009) Porcine myelomonocytic markers and cell populations. [Dev Comp Immunol. 33 \(3\): 284-98.](#)
6. Rayat, G.R. *et al.* (2016) First update of the International Xenotransplantation Association consensus statement on conditions for undertaking clinical trials of porcine islet products in type 1 diabetes - Chapter 3: Porcine islet product manufacturing and release testing criteria. [Xenotransplantation. 23 \(1\): 38-45.](#)
7. Poulsen, C.B. *et al.* (2016) Treatment with a human recombinant monoclonal IgG antibody against oxidized LDL in atherosclerosis-prone pigs reduces cathepsin S in coronary lesions. [Int J Cardiol. 215: 506-515.](#)

8. Sohn, E.H. *et al.* (2015) Allogenic iPSC-derived RPE cell transplants induce immune response in pigs: a pilot study. [Sci Rep. 5: 11791.](#)
9. Wang, L. *et al.* (2017) Porcine alveolar macrophage polarization is involved in inhibition of porcine reproductive and respiratory syndrome virus (PRRSV) replication. [J Vet Med Sci. Sep 17 \[Epub ahead of print\].](#)
10. Porras, A.M. *et al.* (2018) Creation of disease-inspired biomaterial environments to mimic pathological events in early calcific aortic valve disease. [Proc Natl Acad Sci U S A. 115 \(3\): E363-E371.](#)

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. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Rabbit Anti Mouse IgG (STAR8...)	DyLight@800
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight@488 , DyLight@680 , DyLight@800 , FITC , HRP

Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL \(MCA691\)](#)

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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