

Datasheet: MCA1218GA

Description:	MOUSE ANTI PIG CD14
Specificity:	CD14
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MIL2
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	■			1/25 - 1/200
Immunohistology - Frozen	■			
Immunohistology - Paraffin			■	
ELISA			■	
Immunoprecipitation			■	
Western Blotting			■	
Immunofluorescence	■			

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.

Target Species	Pig
Species Cross Reactivity	Reacts with: Human N.B. Antibody reactivity and working conditions may vary between species.
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 Stabilisers	0.09% Sodium Azide (NaN ₃)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml

Immunogen	Porcine peripheral blood lymphocytes.
External Database Links	UniProt: A2SW51 Related reagents
Fusion Partners	Spleen cells from immunized Balb/c mice were fused with cells from the P2-X63-Ag.653 mouse myeloma.
Specificity	Mouse anti Pig CD14, clone MIL2 recognizes porcine CD14. Clone MIL2 was clustered as porcine CD14 at the Third International Workshop on Swine Leukocyte Differentiation Antigens (Haverson et al. 2001) . 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 studies. Further, pre-incubation of peripheral blood monocytes with MIL2 inhibits the binding of FITC labelled LPS, consistent with masking the CD14 LPS binding site (Thacker et al. 2001) . 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 (Zelnickova et al. 2007). 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. (Petersen et al. 2007, Sanz et al. 2007).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	1. Hauet, T. et al. (2000) Trimetazidine reduces renal dysfunction by limiting the cold ischemia/reperfusion injury in autotransplanted pig kidneys. J Am Soc Nephrol. 11: 138-48. 2. Thacker, E. et al. (2001) Summary of workshop findings for porcine myelomonocytic markers. Vet Immunol Immunopathol. 80 (1-2): 93-109. 3. 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. 4. Thorgersen, E.B. et al. (2010) CD14 inhibition efficiently attenuates early inflammatory and hemostatic responses in <i>Escherichia coli</i> sepsis in pigs. FASEB J. 24: 712-22. 5. Goujon, J.M. et al. (2000) Influence of cold-storage conditions on renal function of autotransplanted large pig kidneys. Kidney Int. 58: 838-50. 6. Li, Y. et al. (2014) Identification of apoptotic cells in the thymus of piglets infected with highly pathogenic porcine reproductive and respiratory syndrome virus. Virus Res. 189: 29-33. 7. Summerfield, A. et al. (2003) Porcine peripheral blood dendritic cells and natural interferon-producing cells. Immunology. 110: 440-9. 8. Vanderheijden, N. et al. (2003) Involvement of sialoadhesin in entry of porcine reproductive and respiratory syndrome virus into porcine alveolar macrophages. J Virol. 77: 8207-15. 9. Barratt-Due, A. et al. (2011) <i>Ornithodoros moubata</i> Complement Inhibitor Is an Equally Effective C5 Inhibitor in Pigs and Humans. J Immunol. 187: 4913-9. 10. Hauet, T. et al. (2002) Polyethylene glycol reduces the inflammatory injury due to cold ischemia/reperfusion in autotransplanted pig kidneys. Kidney Int. 62: 654-67. 11. Kapetanovic, R. et al. (2012) Pig bone marrow-derived macrophages resemble human macrophages in their response to bacterial lipopolysaccharide. J Immunol. 188: 3382-94. 12. Thorgersen, E.B. et al. (2009) Inhibition of complement and CD14 attenuates the <i>Escherichia coli</i>-induced inflammatory response in porcine whole blood. Infect Immun. 77: 725-32. 13. Zelnickova, P. et al. (2007) Intracellular cytokine detection by flow cytometry in pigs: fixation, permeabilization and cell surface staining. J Immunol Methods. 327: 18-29.

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Further Reading

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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. 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.
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 (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®549 , DyLight®649 , DyLight®680 , DyLight®800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Human Anti Mouse IgG2b (HCA038...)	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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