Datasheet: MCA1220GA

BATCH NUMBER 170310

Description:	MOUSE ANTI PIG CD11R1
Specificity:	CD11R1
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MIL4
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	▪			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.

Target Species

Pig

Species Cross Reactivity

Reacts with: Human, Guinea Pig

N.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.

Product Form

Purified IgG - liquid

Preparation

Purified IgG prepared by affinity chromatography on Protein A 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 mg/ml
Immunogen	Porcine Lamina Propria Leucocytes.
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the P3 - X63 - Ag.653 myeloma cell line.
Specificity	**Mouse anti Pig CD11R1, clone MIL4** recognizes the porcine cell surface antigen classified as CD11R1 at the Third International Workshop on Swine Leukocyte Differentiation Antigens (Haverson *et al.* 2001). Mouse anti Pig CD11R1, clone MIL4 stains porcine eosinophils, a subset of neutrophils and NK cells, it does not stain monocytes or macrophages (Haverson *et al.* 1994). 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 (Dominguez *et al.* 2001) 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 (Takizawa *et al.* 2004) (Eremin *et al.* 1980).
Flow Cytometry	Use 10µl of the suggested working dilution to label $1x10^6$ cells in 100µl
References	1. Haverson, K. *et al.* (1994) Characterization of monoclonal antibodies specific for monocytes, macrophages and granulocytes from porcine peripheral blood and mucosal tissues. J Immunol Methods. 170 (2): 233-45. 2. Domínguez, J. *et al.* (2001) Workshop studies on monoclonal antibodies in the myeloid panel with CD11 specificity. Vet Immunol Immunopathol. 80 (1-2): 111-9. 3. Ordway, D.*et al.* (2007) The cellular immune response to *Mycobacterium tuberculosis* infection in the guinea pig. J Immunol. 179: 2532-41. 4. Inman, C.F. *et al.* (2010) Dendritic cells interact with CD4 T cells in intestinal mucosa. J Leukoc Biol. 88: 571-8. 5. Cheng, Q. *et al.* (2010) Administered CpG oligodeoxynucleotide induces mRNA expression of CXC and CC chemokines at the intestinal mucosa and PBMCs in piglets. Int Immunopharmacol. 10: 611-8. 6. Shang, S. *et al.* (2011) Activities of TMC207, rifampin, and pyrazinamide against *Mycobacterium tuberculosis* infection in guinea pigs. Antimicrob Agents Chemother. 55

(1): 124-31.
7. Rank, R.G. *et al.* (2012) Effect of Inflammatory Response on In Vivo Competition between Two Chlamydial Variants in the Guinea Pig Model of Inclusion Conjunctivitis. Infect Immun. 80: 612-9.
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.
9. Shegarfi, H. *et al.* (2015) Regulation of CCN1 (Cyr61) in a porcine model of intestinal ischemia/reperfusion. Innate Immun. 21 (5): 453-62.
10. 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.
11. Auray, G. *et al.* (2016) Characterization and Transcriptomic Analysis of Porcine Blood Conventional and Plasmacytoid Dendritic Cells Reveals Striking Species-Specific Differences. J Immunol. 197 (12): 4791-806.
12. Tsukida, K. *et al.* (2016) Immunoregulatory effects triggered by immunobiotic *Lactobacillus jensenii* TL2937 strain involve efficient phagocytosis in porcine antigen presenting cells. BMC Immunol. 17 (1): 21.
13. Sautter, C.A. *et al.* (2018) Phenotypic and functional modulations of porcine macrophages by interferons and interleukin-4. Dev Comp Immunol. 84: 181-92.
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.
15. 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.
16. Álvarez, B. *et al.* (2023) Porcine Macrophage Markers and Populations: An Update. Cells. 12 (16): 2103.

Further Reading	1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. Vet Res. 39: 54.
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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA1220GA
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Rabbit Anti Mouse IgG (STAR12...)	RPE
Rabbit Anti Mouse IgG (STAR13...)	HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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