

Datasheet: MCA1751A647

BATCH NUMBER 171784

Description:	MOUSE ANTI PIG CD45RA:Alexa Fluor® 647
Specificity:	CD45RA
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	MIL13
Isotype:	IgG1
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat - 1/10

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		
Product Form	Purified IgG conjugated to Alexa Fluor® 647 - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Alexa Fluor®647	650	665
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)		
	1% bovine serum albumin		
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml		

Immunogen	Cells isolated from porcine mesenteric lymph node
Specificity	Mouse anti Pig CD45RA, clone MIL13, recognizes an epitope contained in the portion of porcine CD45 encoded by exon A, CD45RA (Lunney et al. 2007). Mouse anti pig CD45RA, clone MIL13 recognizes both the 210 kDa RA CD45 isoform and the 226 kDa RAC isoform (Zuckermann et al. 2001). Clone MIL13 does not recognize the CD45RC or CD45RO isoforms.
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 ⁶ cells in 100µl
References	1. Pakkanen, T.M. <i>et al.</i> (2000) Periadventitial lacZ gene transfer to pig carotid arteries using a biodegradable collagen collar or a wrap of collagen sheet with adenoviruses and plasmid-liposome complexes. J Gene Med. 2: 52-60. 2. Terzic, S. <i>et al.</i> (2002) Immunophenotyping of leukocyte subsets in peripheral blood and palatine tonsils of prefattening pigs. Vet Res Commun. 26: 273-83. 3. Bozić F <i>et al.</i> (2002) Recruitment of intestinal CD45RA+ and CD45RC+ cells induced by a candidate oral vaccine against porcine post-weaning colibacillosis. Vet Immunol Immunopathol. 86 (3-4): 137-46. 4. Schierack, P. <i>et al.</i> (2009) Effects of <i>Bacillus cereus</i> var. <i>toyoi</i> on immune parameters of pregnant sows. Vet Immunol Immunopathol. 127: 26-37. 5. Thierry, A. <i>et al.</i> (2012) Identification of invariant natural killer T cells in porcine peripheral blood. Vet Immunol Immunopathol. 149 (3-4): 272-9. 6. Suzuki, S. <i>et al.</i> (2016) Generation and characterization of RAG2 knockout pigs as animal model for severe combined immunodeficiency. Vet Immunol Immunopathol. 178: 37-49. 7. López, E. <i>et al.</i> (2019) Identification of very early inflammatory markers in a porcine myocardial infarction model. BMC Vet Res. 15 (1): 91. 8. Li, K. <i>et al.</i> (2019) Generation of porcine monoclonal antibodies based on single cell technologies. Vet Immunol Immunopathol. 215: 109913. 9. Forner, R. <i>et al.</i> (2021) Distribution difference of colostrum-derived B and T cells subsets in gilts and sows. PLoS One. 16 (5): e0249366. 10. Ogiyara, K. <i>et al.</i> (2022) A porcine lymphoma-derived cell line co-expressing IgM, IgG and IgA. J Vet Med Sci. 84 (6): 760-5. 11. Zhao, H. <i>et al.</i> (2022) Development of <i>RAG2</i>^{-/-} <i>IL2Rγ</i>^{-/-} immune deficient FAH-knockout miniature pig. Front Immunol. 13: 950194. 12. Haach, V. <i>et al.</i> (2023) A polyvalent virosomal influenza vaccine induces broad cellular and humoral immunity in pigs. Virol J. 20 (1): 181. 13. Li, J. <i>et al.</i> (2024) Single-cell transcriptomic analysis reveals transcriptional and cell subpopulation differences between human and pig immune cells. Genes Genomics. 46 (3): 303-22. 14. Maciag, S. <i>et al.</i> (2022) Effects of freezing storage on the stability of maternal cellular and humoral immune components in porcine colostrum. Vet Immunol Immunopathol. 254: 110520. 15. Xie, Q. <i>et al.</i> (2025) Immune cell response after intracerebral hemorrhage in piglets and the treatment effects of deferoxamine and minocycline. Exp Neurol. : 115354. 23 Jun [Epub ahead of print]

16. Hu, Z. *et al.* (2025) Long-term engraftment of human stem and progenitor cells for large-scale production of functional immune cells in engineered pigs. [Nat Biomed Eng. 9 \(10\): 1691-1704.](#)

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
Acknowledgements	This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchased product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or outlicensing@thermofisher.com
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA1751A647
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA928A647\)](#)

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
'M411339:221102'

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