

Datasheet: MCA1749PE

Description:	MOUSE ANTI PIG CD4 ALPHA:RPE
Specificity:	CD4 ALPHA
Other names:	CD4
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	MIL17
Isotype:	IgG2b
Quantity:	100 TESTS

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

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 R. Phycoerythrin (RPE) - lyophilized		
Reconstitution	Reconstitute with 1.0 ml distilled water		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% sodium azide (NaN ₃)		
Stabilisers	1% bovine serum albumin		
	5% sucrose		

Immunogen	Leucocytes isolated from porcine gut lamina propria.
RRID	AB_323455
Specificity	<p>Mouse anti Porcine CD4 alpha, clone MIL17 recognizes a ~55 kDa porcine homologue to the human CD4 antigen found on the surface of helper-T cells. MIL-17 was confirmed as a member of the CD4 alpha cluster at the 'Third International Workshop on Swine Leukocyte Differentiation Antigens' (Haverson et al. 2001). Porcine CD4 is a type 1 trans-membrane member of the immunoglobulin superfamily.</p> <p>Pigs appear unusual amongst mammalian species as they appear to have four populations of resting T lymphocytes. In addition to the two populations of mutually exclusive CD4+/CD8- and CD4-/CD8+ lymphocytes, they also appear to have significant populations of CD4-/CD8- and CD4+/CD8+ cells. Lymphoblasts with a double positive phenotype have been described in other species but this is not the case for mature T lymphocytes (Saalmüller et al. 1987)</p> <p>Mouse anti Pig CD4 alpha, clone MIL17 stains a population of cells with characteristic lymphocyte morphology in immunohistochemistry (Inman et al. 2010).</p>
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 ⁶ cells in 100µl
References	<ol style="list-style-type: none"> Saalmüller A et al. (2001) Summary of workshop findings for porcine T-lymphocyte-specific monoclonal antibodies. Vet Immunol Immunopathol. 80 (1-2): 35-52. Castellano, G. et al. (2010) Therapeutic targeting of classical and lectin pathways of complement protects from ischemia-reperfusion-induced renal damage. Am J Pathol. 176: 1648-59. Inman, C.F. et al. (2010) Dendritic cells interact with CD4 T cells in intestinal mucosa. J Leukoc Biol. 88 (3): 571-8. Kick, A.R. et al. (2011) Evaluation of peripheral lymphocytes after weaning and vaccination for <i>Mycoplasma hyopneumoniae</i>. Res Vet Sci. 91 (3): e68-72. Kick, A.R. et al. (2012) Effects of stress associated with weaning on the adaptive immune system in pigs. J Anim Sci. 90: 649-56. Goujon, J.M. et al. (2000) Influence of cold-storage conditions on renal function of autotransplanted large pig kidneys. Kidney Int. 58: 838-50. Tambuyzer BR et al. (2012) Osteopontin alters the functional profile of porcine microglia <i>in vitro</i>. Cell Biol Int. 36 (12): 1233-8. Tuchscherer, M. et al. (2012) Effects of inadequate maternal dietary protein:carbohydrate ratios during pregnancy on offspring immunity in pigs. BMC Vet Res. 8: 232. Cao, D. et al. (2010) Synthetic innate defence regulator peptide enhances in vivo immunostimulatory effects of CpG-ODN in newborn piglets. Vaccine. 28: 6006-13. Clapperton, M. et al. (2005) Associations of weight gain and food intake with leukocyte sub-sets in Large White pigs Livestock Production Science 96: 249-60 Clapperton, M. et al. (2005) Innate immune traits differ between Meishan and Large White pigs. Vet Immunol Immunopathol. 104: 131-44. Clapperton, M. et al. (2008) Pig peripheral blood mononuclear leucocyte subsets are heritable and genetically correlated with performance. Animal. 2: 1575-84.

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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.](#)

Storage Prior to reconstitution store at +4°C. Following reconstitution store at +4°C.
DO NOT FREEZE.
This product should be stored undiluted. This product is photosensitive and should be protected from light. 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 #20487 available at:
<https://www.bio-rad-antibodies.com/SDS/MCA1749PE>
20487

Related Products

Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL:RPE \(MCA691PE\)](#)

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