

Datasheet: MCA2314PE

BATCH NUMBER 167349

Description:	MOUSE ANTI PIG SLA CLASS II DR:RPE
Specificity:	SLA CLASS II DR
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	2E9/13
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		
Species Cross Reactivity	Reacts with: Bovine 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 conjugated to R. Phycoerythrin (RPE) - lyophilized		
Reconstitution	Reconstitute with 1 ml distilled water		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
	RPE 561nm laser	546	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	Porcine monocytes.
-----------	--------------------

External Database Links	UniProt: Q85ZW4 Related reagents
-------------------------	---

Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse X63-Ag.8.653 myeloma cell line.
-----------------	--

Specificity	Mouse anti Pig SLA Class II DR antibody, clone 2E9/13 recognizes SLA DR molecules which are expressed on all B cells, antigen presenting cells and on certain subsets of resting and activated T cells. Mouse anti Pig SLA Class II DR antibody, clone 289/13 reacts with lymphocytes from all outbred and miniature pigs so far tested, suggesting that it recognizes a monomorphic determinant of porcine SLA DR.
-------------	--

The major histocompatibility complex (MHC) is a cluster of genes that are important in the immune response to infections. In pigs, this is referred to as the swine leukocyte antigen (SLA) region. There are 3 major MHC class II proteins encoded by the SLA which are SLA DP, SLA DQ and SLA DR.

Mouse anti pig SLA class II DR, clone 2E9/13 immunoprecipitates a heterodimer composed of two polypeptides of ~28 and ~35 kDa from NP-40 extracts of biotin surface-labeled porcine peripheral blood mononuclear cells. Mouse anti Pig SLA Class II DR antibody, clone 289/13 is reported to inhibit the mixed lymphocyte reaction and T cell stimulation induced by African swine fever virus and staphylococcal enterotoxin B ([Bullido et al. 1997](#)).

Flow Cytometry	Use 10µl of the suggested working dilution to 1x10 ⁶ cells in 100µl
----------------	--

References	<ol style="list-style-type: none">1. Bullido, R. <i>et al.</i> (1997) Characterization of five monoclonal antibodies specific for swine class II major histocompatibility antigens and crossreactivity studies with leukocytes of domestic animals. Dev Comp Immunol. 21 (3): 311-22.2. Jeong, H.J. <i>et al.</i> (2010) Comparative measurement of cell-mediated immune responses of swine to the M and N proteins of porcine reproductive and respiratory syndrome virus. Clin Vaccine Immunol. 17: 503-12.3. Ding, Q. <i>et al.</i> (2011) Human PD-L1-overexpressing porcine vascular endothelial cells induce functionally suppressive human CD4+CD25hiFoxp3+ Treg cells. J Leukoc Biol. 90 (1): 77-86.4. 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.
------------	--

5. Iwase H *et al.* (2015) Initial *in vivo* experience of pig artery patch transplantation in baboons using mutant MHC (CIITA-DN) pigs. [Transpl Immunol. 32 \(2\): 99-108.](#)
6. Zanotti, C. *et al.* (2015) Differential Biological Activities of Swine Interferon- α Subtypes. [J Interferon Cytokine Res. 35 \(12\): 990-1002.](#)
7. Wang, Y. *et al.* (2016) Genipin crosslinking reduced the immunogenicity of xenogeneic decellularized porcine whole-liver matrices through regulation of immune cell proliferation and polarization. [Sci Rep. 6: 24779.](#)
8. Gardner, D.S. *et al.* (2016) Remote effects of acute kidney injury in a porcine model. [Am J Physiol Renal Physiol. 310 \(4\): F259-71.](#)
9. 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.](#)
10. Rahe, M.C. & Murtaugh, M.P. (2017) Interleukin-21 Drives Proliferation and Differentiation of Porcine Memory B Cells into Antibody Secreting Cells. [PLoS One. 12 \(1\): e0171171.](#)
11. Mašek, J. *et al.* (2017) Multi-layered nanofibrous mucoadhesive films for buccal and sublingual administration of drug-delivery and vaccination nanoparticles - important step towards effective mucosal vaccines. [J Control Release. 249: 183-95.](#)
12. Ladowski, J.M. *et al.* (2018) Swine Leukocyte Antigen Class II Is a Xenoantigen. [Transplantation. 102 \(2\): 249-54.](#)
13. Yang, N. *et al.* (2018) Reduced antigen presentation capability and modified inflammatory/immunosuppressive cytokine expression of induced monocyte-derived dendritic cells from peripheral blood of piglets infected with porcine circovirus type 2. [Arch Virol. 163 \(5\): 1231-9.](#)
14. López, E. *et al.* (2019) Identification of very early inflammatory markers in a porcine myocardial infarction model. [BMC Vet Res. 15 \(1\): 91.](#)
15. Liu, S. *et al.* (2019) Endothelial IL-8 induced by porcine circovirus type 2 affects dendritic cell maturation and antigen-presenting function. [Virol J. 16 \(1\): 154.](#)
16. Radlowski, E.C. *et al.* (2021) Combination-Feeding Causes Differences in Aspects of Systemic and Mucosal Immune Cell Phenotypes and Functions Compared to Exclusive Sow-Rearing or Formula-Feeding in Piglets. [Nutrients. 13\(4\):1097.](#)
17. Arenal, Á. *et al.* (2022) Effects of Cardiac Stem Cell on Postinfarction Arrhythmogenic Substrate. [Int J Mol Sci. 23 \(24\): 16211.](#)
18. Franzoni, G. *et al.* (2022) Analyses of the Impact of Immunosuppressive Cytokines on Porcine Macrophage Responses and Susceptibility to Infection to African Swine Fever Viruses. [Pathogens. 11 \(2\): 166.](#)
19. Haach, V. *et al.* (2023) A polyvalent virosomal influenza vaccine induces broad cellular and humoral immunity in pigs. [Virol J. 20 \(1\): 181.](#)
20. Skirecki, T. *et al.* (2022) Compartment-Specific Differences in the Activation of Monocyte Subpopulations Are Not Affected by Nitric Oxide and Glucocorticoid Treatment in a Model of Resuscitated Porcine Endotoxemic Shock. [J Clin Med. 11 \(9\): 2641.](#)

Further Reading

1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. [Vet Res. 39: 54.](#)
 2. Rayat GR *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.](#)
-

Storage Store at +4°C.
DO NOT FREEZE.
This product should be stored undiluted. This product is photosensitive and should be protected from light.
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 #20487 available at:
<https://www.bio-rad-antibodies.com/SDS/MCA2314PE>
20487

Regulatory For research purposes only

Related Products

Recommended Negative Controls

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

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
----------------------------------	---	------------------	---	---------------	---

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M419669:230616'

Printed on 13 Mar 2024