

Datasheet: MCA2314A647

BATCH NUMBER 159559

Description:	MOUSE ANTI PIG SLA CLASS II DR:Alexa Fluor® 647
Specificity:	SLA CLASS II DR
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	2E9/13
Isotype:	IgG2b
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 - 1/5

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. 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: 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 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	0.09% Sodium Azide (NaN ₃)
Stabilisers	1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml
Immunogen	Porcine monocytes.
External Database Links	UniProt: Q85ZW4 Related reagents
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse X63-Ag.8.653 myeloma cell line.
Specificity	<p>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.</p> <p>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.</p> <p>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).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to 1x10 ⁶ cells in 100ul.
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. Wang, Y. <i>et al.</i> (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. 5. Park KM <i>et al.</i> (2013) Generation of porcine induced pluripotent stem cells and

evaluation of their major histocompatibility complex protein expression in vitro. [Vet Res Commun. 37 \(4\): 293-301.](#)

6. 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.](#)

7. 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.](#)

8. Zanotti, C. *et al.* (2015) Differential Biological Activities of Swine Interferon- α Subtypes. [J Interferon Cytokine Res. 35 \(12\): 990-1002.](#)

9. 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.](#)

10. Mašek J *et al.* (2016) 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. Jul 25. pii: S0168-3659\(16\)30471-0 \[Epub ahead of print\]](#)

11. 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.](#)

12. 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.](#)

13. López, E. *et al.* (2019) Identification of very early inflammatory markers in a porcine myocardial infarction model. [BMC Vet Res. 15 \(1\): 91.](#)

14. 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.](#)

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. 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.](#)

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

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Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2314A647>

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA691A647\)](#)

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
'M384341:210513'

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