Datasheet: MCA2314F

BATCH NUMBER 148460

Description:	MOUSE ANTI PIG SLA CLASS II DR:FITC
Specificity:	SLA CLASS II DR
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	2E9/13
Isotype:	IgG2b
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	▪			Neat

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 Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

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 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml
Immunogen	Porcine monocytes.
RRID	AB_567376
Fusion Partners	Spleen cells from immunised 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 10ul of the suggested working dilution to 1x10^6 cells in 100ul.
References	1. Bullido, R. *et al.* (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. *et al.* (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. *et al.* (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. *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. 5. Park KM *et al.* (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.

Further Reading	1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. Vet Res. 39: 54.
Storage	Store at +4°C or at -20°C if preferred. This product should be stored undiluted. Storage in frost free freezers is not recommended. 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 #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA2314F 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG2b NEGATIVE CONTROL:FITC (MCA691F)

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

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