

Datasheet: MCA2261F

BATCH NUMBER 152430

Description:	MOUSE ANTI PIG SLA CLASS I:FITC
Specificity:	SLA CLASS I
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	JM1E3
Isotype:	IgG1
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. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using the appropriate negative/positive controls.

Target Species

Pig

Species Cross Reactivity

Reacts with: Human

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 peripheral blood mononuclear cells.
RRID	AB_324826
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2/0 - Ag14 myeloma cell line.
Specificity	<p>Mouse anti Pig SLA Class I antibody, clone JM1E3 recognizes a monomorphic epitope expressed by porcine MHC class I molecules (SLA - 1). SLA - 1 is expressed by all nucleated porcine cells, but not on erythrocytes. This antibody has also been shown to cross-react with human MHC Class I, including HLA-E. (Galiani et al. 2002)</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.</p> <p>Mouse anti pig SLA class I, clone JM1E3 has been reported to block the interaction of MHC Class I antigens with inhibitory NK cell receptors (Galiani et al. 2002).</p>
Flow Cytometry	Use 10 ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> Galiani, D. <i>et al.</i>. (2002) A new monoclonal antibody (JM1E3) specific for porcine SLA Class I antigen recognises HLA Class I antigens and interferes with HLA recognition by human NK inhibitory receptors. In <i>Leucocyte Typing VII</i>. Edited by Mason. D. <i>et al.</i>. Oxford University Press pp 437-39. 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. Hurtado, C. <i>et al.</i> (2011) The African swine fever virus lectin EP153R modulates the surface membrane expression of MHC class I antigens. Arch Virol. 156: 219-34. Ding, G. <i>et al.</i> (2010) Suppression of T cell proliferation by root apical papilla stem cells in vitro. Cells Tissues Organs. 191: 357-64. Park, J.Y. <i>et al.</i> (2008) Characterization of interaction between porcine reproductive and respiratory syndrome virus and porcine dendritic cells. J Microbiol Biotechnol. 18: 1709-16. Van Parys, A. <i>et al.</i> (2012) Salmonella Typhimurium induces SPI-1 and SPI-2 regulated and strain dependent downregulation of MHC II expression on porcine alveolar macrophages. Vet Res. 43: 52. Löndt, B.Z. <i>et al.</i> (2013) Enhanced infectivity of H5N1 highly pathogenic avian influenza (HPAI) virus in pig <i>ex vivo</i> respiratory tract organ cultures following adaptation by <i>in vitro</i> passage. Virus Res. 178(2):383-91. Blázquez, R. <i>et al.</i> (2015) Intrapericardial administration of mesenchymal stem cells in a large animal model: a bio-distribution analysis. PLoS One. 10 (3): e0122377.

9. Rayat, G.R. *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.](#)
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14. Le, T.M. *et al.* (2017) β 2-microglobulin gene duplication in cetartiodactyla remains intact only in pigs and possibly confers selective advantage to the species. [PLoS One. 12 \(8\): e0182322.](#)
15. Linard, C. *et al.* (2018) Autologous Bone Marrow Mesenchymal Stem Cells Improve the Quality and Stability of Vascularized Flap Surgery of Irradiated Skin in Pigs. [Stem Cells Transl Med. 7 \(8\): 569-582.](#)

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/MCA2261F>
10041

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

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