

## Datasheet: MCA5973F

<b>Description:</b>	MOUSE ANTI PIG CD27:FITC
<b>Specificity:</b>	CD27
<b>Other names:</b>	SWC2
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	B30C7
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat - 1/10
Immunofluorescence			▪	

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.

<b>Target Species</b>	Pig		
<b>Product Form</b>	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	FITC	490	525
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative</b>	0.09% Sodium Azide (NaN <sub>3</sub> )		
<b>Stabilisers</b>	1% Bovine Serum Albumin		
<b>Approx. Protein</b>	IgG concentration 0.1 mg/ml		

## Concentrations

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**Immunogen** Porcine peripheral blood monocytes.

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**External Database Links**

**UniProt:**

[F1SL30](#)

[Related reagents](#)

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**Fusion Partners** Spleen cells from immunized Balb/c mice were fused with cells of the SP2/0-Ag14 myeloma cell line

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**Specificity**

**Mouse anti Pig CD27 antibody, clone B30C7** recognizes the porcine homologue of human CD27, previously known as Swine Workshop Cluster 2 (SWC2), a T-cell co-stimulatory molecule belonging to the TNF receptor family. In humans the CD27 antigen is expressed by discrete populations of T- and B-cells where it functions in a co-stimulatory role to induce proliferation of T-cells and B-cells, however, using the B30C7 clone, expression of CD27 on porcine B-cells appears undetectable ([Reutner et al. 2012](#)).

Porcine CD27 is expressed by all naïve CD8a<sup>ve</sup> T-helper cells and a sub-population of CD8a<sup>+ve</sup> cells ([Reutner et al. 2012](#)).

Monoclonal antibodies to CD27 have previously been used to differentiate between subsets of NK cells and clone B30C7 may be used to differentiate between subsets of pig NK cells ([Mair et al. 2013](#)).

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**Flow Cytometry**

Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells in 100ul

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**References**

1. Reutner, K. *et al.* (2012) Porcine CD27: identification, expression and functional aspects in lymphocyte subsets in swine. [Dev Comp Immunol. 38: 321-31.](#)
  2. Reutner, K. *et al.* (2013) CD27 expression discriminates porcine T helper cells with functionally distinct properties. [Vet Res. 44: 18.](#)
  3. Mair, K.H. *et al.* (2013) Porcine CD8 $\alpha$ dim-/NKp46high NK cells are in a highly activated state. [Vet Res. 44: 13.](#)
  4. Franzoni, G. *et al.* (2013) Assessment of the Phenotype and Functionality of Porcine CD8 T Cell Responses following Vaccination with Live Attenuated Classical Swine Fever Virus (CSFV) and Virulent CSFV Challenge. [Clin Vaccine Immunol. 20: 1604-16.](#)
  5. López, E. *et al.* (2019) Identification of very early inflammatory markers in a porcine myocardial infarction model. [BMC Vet Res. 15 \(1\): 91.](#)
  6. Maciag, S.S. *et al.* (2022) The influence of source of porcine colostrum in development of early immune ontogeny in the piglet [Res Sq. Mar 24 \[Epub ahead of print\].](#)
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**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. This product is photosensitive and should be protected from light.

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**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/MCA5973F>  
10041

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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

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

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

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**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto: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](mailto: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](https://www.bio-rad-antibodies.com/datasheets)

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