

Datasheet: MCA5973F

Description:	MOUSE ANTI PIG CD27:FITC
Specificity:	CD27
Other names:	SWC2
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	B30C7
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 - 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.

Target Species	Pig		
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	0.09% Sodium Azide (NaN ₃)		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein	IgG concentration 0.1 mg/ml		

Concentrations

Immunogen Porcine peripheral blood monocytes.

External Database Links

UniProt:

[F1SL30](#)

[Related reagents](#)

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

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^{ve} T-helper cells and a sub-population of CD8a^{ve} 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](#)).

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul

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 α dim⁻/NKp46^{high} 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) On the influence of the source of porcine colostrum in the development of early immune ontogeny in piglets. [Sci Rep. 12 \(1\): 15630.](#)
7. Bettin, L. *et al.* (2023) Co-stimulation by TLR7/8 ligand R848 modulates IFN- γ production of porcine $\gamma\delta$ T cells in a microenvironment-dependent manner. [Dev Comp Immunol. 138: 104543.](#)
8. Haach, V. *et al.* (2023) A polyvalent virosomal influenza vaccine induces broad cellular and humoral immunity in pigs. [Virology. 20 \(1\): 181.](#)
9. Maciag, S. *et al.* (2022) Effects of freezing storage on the stability of maternal cellular and humoral immune components in porcine colostrum. [Vet Immunol Immunopathol. 254: 110520.](#)

10. Forner, R. *et al.* (2021) Distribution difference of colostrum-derived B and T cells subsets in gilts and sows. [PLoS One. 16 \(5\): e0249366.](#)

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.

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/MCA5973F>
10041

Regulatory For research purposes only

Related Products

Recommended Negative Controls

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

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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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