

Datasheet: MCA5973PE

BATCH NUMBER INN0715

Description:	MOUSE ANTI PIG CD27:RPE
Specificity:	CD27
Other names:	SWC2
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	B30C7
Isotype:	IgG1
Quantity:	100 TESTS

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 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 R. Phycoerythrin (RPE) - lyophilized		
Reconstitution	Reconstitute with 1ml distilled water		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
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		

5% Sucrose

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. 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.](#)
4. Mair, K.H. *et al.* (2013) Porcine CD8αdim/-NKp46high NK cells are in a highly activated state. [Vet Res. 44: 13.](#)
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 \[Epub ahead of print\].](#)

Storage

Prior to reconstitution store at +4°C. Following reconstitution store at +4°C.

DO NOT FREEZE.

This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee	12 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #20487 available at: https://www.bio-rad-antibodies.com/SDS/MCA5973PE 20487
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Regulatory	For research purposes only
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Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA928PE\)](#)

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
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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
'M375620:210104'

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