

Datasheet: MCA5973APC

BATCH NUMBER 155983

Description:	MOUSE ANTI PIG CD27:APC
Specificity:	CD27
Other names:	SWC2
Format:	APC
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 Allophycocyanin (APC) - lyophilised		
Reconstitution	Reconstitute with 1.0 ml distilled water		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	APC	650	661
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 studies undertaken using the B30C7 clone have been unable to detect expression of CD27 on porcine B-cells ([Reutner et al. 2012](#)).

Studies in humans have demonstrated CD27 to be involved in apoptosis, research in swine has shown that 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 research utilizing clone B30C7 has shown that this monoclonal antibody 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 CD8 α dim/-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.](#)
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Storage

Prior to reconstitution store at +4°C.

After 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

Health And Safety Information Material Safety Datasheet documentation #20487 available at:
<https://www.bio-rad-antibodies.com/SDS/MCA5973APC>
20487

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:APC \(MCA928APC\)](#)

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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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