

Datasheet: MCA5973APC

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) - lyophilized		
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	<p>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).</p> <p>Porcine CD27 is expressed by all naïve CD8a^{ve} T-helper cells and a sub-population of CD8a^{ve} cells (Reutner et al. 2012).</p> <p>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).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul
References	<ol style="list-style-type: none"> 1. Reutner, K. <i>et al.</i> (2012) Porcine CD27: identification, expression and functional aspects in lymphocyte subsets in swine. Dev Comp Immunol. 38: 321-31. 2. Reutner, K. <i>et al.</i> (2013) CD27 expression discriminates porcine T helper cells with functionally distinct properties. Vet Res. 44: 18. 3. Mair, K.H. <i>et al.</i> (2013) Porcine CD8αdim/-NKp46high NK cells are in a highly activated state. Vet Res. 44: 13. 4. Franzoni, G. <i>et al.</i> (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. <i>et al.</i> (2019) Identification of very early inflammatory markers in a porcine myocardial infarction model. BMC Vet Res. 15 (1): 91. 6. Maciag, S.S. <i>et al.</i> (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. <i>et al.</i> (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. <i>et al.</i> (2023) A polyvalent virosomal influenza vaccine induces broad cellular and humoral immunity in pigs. Virol J. 20 (1): 181. 9. Maciag, S. <i>et al.</i> (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. <i>et al.</i> (2021) Distribution difference of colostrum-derived B and T cells subsets in gilts and sows. PLoS One. 16 (5): e0249366.

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 \(MCA928APC\)](#)

North & South Tel: +1 800 265 7376

America 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

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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