

Datasheet: MCA5973A647

Description:	MOUSE ANTI PIG CD27:Alexa Fluor® 647
Specificity:	CD27
Other names:	SWC2
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	B30C7
Isotype:	IgG1
Quantity:	100 TESTS/1ml

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

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 Alexa Fluor 647 - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Alexa Fluor®647	650	665
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)		
	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml		

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 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.

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/MCA5973A647>

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA928A647\)](#)

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M395604:220517'

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