

Datasheet: MCA5972APC

Description:	MOUSE ANTI PIG CD335:APC
Specificity:	CD335
Other names:	NKp46
Format:	APC
Product Type:	Monoclonal Antibody
Clone:	VIV-KM1
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 supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin 5% Sucrose		

Immunogen	Fusion protein consisting of the extracellular region of porcine CD335.
Fusion Partners	Spleen cells from immunized Balb/c mice were fused with cells of the SP2/0 myeloma cell line
Specificity	<p>Mouse anti Pig CD335 antibody, clone VIV-KM1 recognizes the porcine homologue of human CD335, also known as NKp46 and natural cytotoxicity triggering receptor 1 (NCR1), a member of the natural cytotoxicity receptor (NCR) family.</p> <p>CD335 is a type I transmembrane protein, with two extracellular C2-type immunoglobulin-like domains, which functions as an activating receptor and is involved in the control of viral infection and tumor development. CD335 is expressed by human natural killer cells (Sivori et al. 1997). The development of monoclonal antibodies to bovine CD335 (clone AKS1) (Storset et al. 2004) and ovine CD335 (clone EC1.1) (Connelley et al. 2011) have enabled researchers to identify and better understand ruminant NK cells.</p> <p>Mouse anti Pig CD335 antibody, clone VIV-KM is the first monoclonal developed to specifically identify porcine CD335 and provides a reagent to facilitate a better understanding of the pig immune system and aid in the understanding of the role of NK cells in host pathogen defense. Porcine CD335 is not expressed by all NK cells and expression may be influenced by cytokine production (Mair et al. 2012).</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. Mair, K.H. <i>et al.</i> (2013) Porcine CD8αdim/-NKp46high NK cells are in a highly activated state. Vet Res. 44: 13. 2. Forberg, H. <i>et al.</i> (2014) Early responses of natural killer cells in pigs experimentally infected with 2009 pandemic H1N1 influenza A virus. PLoS One. 9 (6): e100619. 3. Yang, G. <i>et al.</i> (2017) Characterizing porcine invariant natural killer T cells: A comparative study with NK cells and T cells. Dev Comp Immunol. 76: 343-51. 4. 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. 5. 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. 6. 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.
Further Reading	<ol style="list-style-type: none"> 1. Sivori, S. <i>et al.</i> (1997) p46, a novel natural killer cell-specific surface molecule that mediates cell activation. J Exp Med. 186 (7): 1129-36. 2. Storset, A.K. <i>et al.</i> (2004) NKp46 defines a subset of bovine leukocytes with natural killer cell characteristics. Eur J Immunol. 34 (3): 669-76. 3. Connelley, T. <i>et al.</i> (2011) NKp46 defines ovine cells that have characteristics corresponding to NK cells. Vet Res. 42: 37.
Storage	<p>This product is shipped at ambient temperature.</p> <p>Prior to reconstitution store at +4°C.</p> <p>After reconstitution store at +4°C.</p>

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/MCA5972APC 20487
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Regulatory	For research purposes only
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Related Products

Recommended Negative Controls

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

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](https://www.bio-rad-antibodies.com/datasheets)
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