Datasheet: MCA5972PE

Description:	MOUSE ANTI PIG CD335:RPE
Specificity:	CD335
Other names:	NKp46
Format:	RPE
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 R. Phycoerythrin (RPE) - lyophilized

Reconstitution

Reconstitute with 1 ml distilled water

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
RPE 488nm laser	496	578
RPE 561nm laser	546	578

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

	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	**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. 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. 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).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul
References	1. Mair, K.H. *et al.* (2013) Porcine CD8αdim/-NKp46high NK cells are in a highly activated state. Vet Res. 44: 13. 2. Forberg, H. *et al.* (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. *et al.* (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. *et al.* (2023) A polyvalent virosomal influenza vaccine induces broad cellular and humoral immunity in pigs. Virol J. 20 (1): 181.
Further Reading	1. Sivori, S. *et al.* (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. *et al.* (2004) NKp46 defines a subset of bovine leukocytes with natural killer cell characteristics. Eur J Immunol. 34 (3): 669-76. 3. Connelley, T. *et al.* (2011) NKp46 defines ovine cells that have characteristics corresponding to NK cells. Vet Res. 42: 37.
Storage	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing as this may denature the antibody. 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/MCA5972PE 20487
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:RPE (MCA928PE)

Recommended Useful Reagents

MOUSE ANTI PIG CD3:RPE (MCA5951PE)
MOUSE ANTI PIG CD16:RPE (MCA1971PE)
MOUSE ANTI SHEEP CD335 (MCA5933GA)
MOUSE ANTI BOVINE CD335 (MCA2365GA)
MOUSE ANTI PIG CD27:RPE (MCA5973PE)

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