Datasheet: MCA5972GA

Description:	MOUSE ANTI PIG CD335
Specificity:	CD335
Other names:	NKp46
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	VIV-KM1
Isotype:	IgG1
Quantity:	0.1 mg

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	▪			1/50 - 1/200
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	
Immunofluorescence	▪			

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system to a concentration equivalent to their test reagent.

Target Species	Pig
Product Form	Purified IgG - liquid
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)
Carrier Free	Yes

Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
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. 5. Maciag, S. *et al.* (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. *et al.* (2021) Distribution difference of colostrum-derived B and T cells subsets in gilts and sows. PLoS One. 16 (5): e0249366.
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	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
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA5972GA 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

Recommended Useful Reagents

RAT ANTI HUMAN CD3:Pacific Blue® (MCA1477PB)
RAT ANTI HUMAN CD3:Alexa Fluor®647 (MCA1477A647)
MOUSE ANTI PIG CD3:FITC (MCA5951F)
MOUSE ANTI PIG CD3:RPE (MCA5951PE)
MOUSE ANTI PIG CD25 (MCA1736GA)
MOUSE ANTI PIG CD45:FITC (MCA1222F)
MOUSE ANTI PIG wCD8 ALPHA:RPE (MCA1223PE)
MOUSE ANTI PIG CD107a:Alexa Fluor® 647 (MCA2315A647)
MOUSE ANTI PIG CD107a:FITC (MCA2315F)

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