Datasheet: MCA1972GA

Description:	MOUSE ANTI PIG CD18a
Specificity:	CD18a
Other names:	INTEGRIN BETA 2 CHAIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	PNK-I
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			▪	
Functional Assays (1)	▪			

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 using appropriate negative/positive controls.

(1)**This product contains sodium azide, removal by dialysis is recommended prior to use in functional assays. Bio-Rad recommend the use of EQU003 for this purpose.**

Target Species	Pig
Species Cross Reactivity	Reacts with: Camel **N.B.** Antibody reactivity and working conditions may vary between species.
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G 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	Porcine large granular lymphocytes.
External Database Links	**UniProt:** P53714 Related reagents **Entrez Gene:** 396943 ITGB2 Related reagents
Synonyms	CD18
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the mouse P3-X63-Ag8.653 myeloma cell line.
Specificity	**Mouse anti Pig CD18a, clone PNK-I** recognizes porcine CD18a. PNK-I was clustered as CD18a at the Second International Workshop to Define Swine Cluster of Differentiation (CD) Antigens (Saalmuller *et al.* 1998). Clone PNK-I immunoprecipitates proteins of ~166 kDa, ~155 kDa and ~95 kDa under non-reducing conditions, specifically recognizing the 95 kDa protein, consistent with the integrin β2 chain (CD18). PNK-I inhibits porcine NK cell activity independent of any effect on antibody dependent cellular cytotoxicity (Dato and Kim 1990). CD18 is a single pass type I transmembrane protein and is expressed on all leukocytes and is involved in a variety of cell functions. CD18 acts as a receptor for several ICAM molecules effecting intercellular adhesion functions, it is also involved in the recognition of a variety of extracellular substrate molecules. CD18 acts as a receptor for a number of leukotoxins produced by fungi and bacteria. Clone PNK-I is able to ameliorate the effects of these leukotoxins by blocking binding of the toxins to the CD18 receptor (Chen *et al.* 2011).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.
References	1. Dato, M.E. & Kim, Y.B. (1990) Characterization and utilization of a monoclonal antibody inhibiting porcine natural killer cell activity for isolation of natural killer and killer cells. J Immunol. 144 (11): 4452-62. 2. Haverson, K. *et al.* (1999) T-cell populations in the pig intestinal lamina propria: memory cells with unusual phenotypic characteristics. Immunology 96: 66-73. 3. Vanden Bergh, P.G. *et al.* (2009) Porcine CD18 mediates Actinobacillus pleuropneumoniae ApxIII species-specific toxicity. Vet Res. 40:1-10. 4. Chen, Z.W. *et al.* (2011) Mechanisms underlying Actinobacillus pleuropneumoniae exotoxin ApxI induced expression of IL-1β, IL-8 and TNF-α in porcine alveolar macrophages. Vet Res. 42:25. 5. Vanden Bergh, P.G. *et al.* (2008) Probing of Actinobacillus pleuropneumoniae ApxIIIA toxin-dependent cytotoxicity towards mammalian peripheral blood mononucleated cells. BMC Res Notes 1:121. 6. Ebdrup, L. *et al.* (2008) Dynamic expression of the signal regulatory protein alpha and CD18 on porcine PBMC during acute endotoxaemia. Scand J Immunol. 68:430-7.
Further Reading	1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. Vet Res. 39:54.

Storage	Store at +4ºC or at -20ºC if preferred. This product should be stored undiluted. Storage in frost free freezers is not recommended. 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 #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos., HRP
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®680, DyLight®800, FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

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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