Datasheet: MCA638GA

Description:	MOUSE ANTI PIG IgA
Specificity:	IgA
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	K61 1B4
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	▪			
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA	▪			1/50K - 1/500K
Immunoprecipitation			▪	
Western Blotting			▪	

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

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	Porcine IgA
Fusion Partners	Spleen cells from immunised mice were fused with cells of the mouse P3-X63-Ag8.653 myeloma cell line
Specificity	**Mouse Anti Pig IgA antibody, clone K61 1B4** recognizes porcine immunoglobulin (Ig) alpha chain. No cross-reactivity is observed with either porcine IgM or IgG. It has been suggested that pigs possess two subclasses of IgA, referred to as either IgA1 and IgA2 similar to the human IgA subclasses. More recent research indicates that these are allotypic variants and described as IgAa and IgAb (Navarro *et al.* 2000). Research undertaken in connection with porcine IgA response to Foot and Mouth disease (Pacheco *et al.* 2010) has demonstrated that clone K61 1B4 recognises both IgAa and IgAb allotypes. IgA is the dominant immunoglobulin found in surface secretions where its role is in the protection of body surfaces. High levels of IgA may be detected in tracheal secretions, saliva, intestinal fluid and urogenital tract secretions. The primary function of IgA is to prevent adherence of bacteria and virus to epithelial surfaces. IgA may also act within epithelial cells where it has a role in interrupting viral replication.
ELISA	This product may be used as a detection reagent in ELISA applications
References	1. Leitão, A. *et al.* (2001) The non-haemadsorbing African swine fever virus isolate ASFV/NH/P68 provides a model for defining the protective anti-virus immune response. J Gen Virol. 82 (Pt 3): 513-23. 2. Bourges, D. *et al.* (2004) T and IgA B lymphocytes of the pharyngeal and palatine tonsils: differential expression of adhesion molecules and chemokines. Scand J Immunol. 60 (4): 338-50. 3. Nejsum, P. *et al.* (2009) Population dynamics of *Trichuris suis* in trickle-infected pigs. Parasitology. 136 (6): 691-7. 4. Pacheco, J.M. *et al.* (2010) IgA antibody response of swine to foot-and-mouth disease virus infection and vaccination. Clin Vaccine Immunol. 17: 550-8. 5. Inman CF *et al.* (2012) Neonatal colonisation expands a specific intestinal antigen-presenting cell subset prior to CD4 T-cell expansion, without altering T-cell repertoire. PLoS One. 7 (3): e33707. 6. Ewaschuk JB *et al.* (2012) Barley-derived β-glucans increases gut permeability, *ex vivo* epithelial cell binding to*E. coli*, and naive T-cell proportions in weanling pigs. J Anim Sci. 90 (8): 2652-62. 7. Kandasamy, S. *et al.* (2014) Lactobacilli and Bifidobacteria enhance mucosal B cell responses and differentially modulate systemic antibody responses to an oral human rotavirus vaccine in a neonatal gnotobiotic pig disease model. Gut Microbes. 5 (5): 639-51. 8. Kandasamy, S. *et al.* (2014) Prenatal vitamin A deficiency impairs adaptive immune responses to pentavalent rotavirus vaccine (RotaTeq®) in a neonatal gnotobiotic pig

model. Vaccine. 32 (7): 816-24.
9. Kringel H *et al.* (2015) Serum antibody responses in pigs trickle-infected with *Ascaris* and *Trichuris*: Heritabilities and associations with parasitological findings. Vet Parasitol. 211 (3-4): 306-11.
10. Guzman-Bautista, E.R. *et al.* (2015) Tracheal and bronchial polymeric immunoglobulin secretory immune system (PISIS) development in a porcine model. Dev Comp Immunol. 53 (2): 271-82.
11. Pasternak, J.A. *et al.* (2015) Oral antigen exposure in newborn piglets circumvents induction of oral tolerance in response to intraperitoneal vaccination in later life. BMC Vet Res. 11 (1): 350.
12. Makadiya, N. *et al.* (2016) S1 domain of the porcine epidemic diarrhea virus spike protein as a vaccine antigen. Virol J. 13: 57.
13. Aubrey, L. *et al.* (2022) A Bivalent Live Attenuated Influenza Virus Vaccine Protects against Drifted H1N2 and H3N2 Clinical Isolates in Swine Viruses. 15 (1): 46.
14. Fourie, K.R. *et al.* (2024) Vaccination with a *Lawsonia intracellularis* subunit water in oil emulsion vaccine mitigated some disease parameters but failed to affect shedding. Vaccine. 42 (24): 126254.
15. Zuckermann, F.A. *et al.* (2024) An effective vaccine against influenza A virus based on the matrix protein 2 (M2) Veterinary Microbiology. 298: 110245.
16. Amimo, J.O. *et al.* (2024) Maternal immunization and vitamin A sufficiency impact sow primary adaptive immunity and passive protection to nursing piglets against porcine epidemic diarrhea virus infection. Front Immunol. 15: 1397118.

Further Reading	1. Navarro, P. *et al.* (2000) Porcine IgA allotypes are not equally transcribed or expressed in heterozygous swine. Mol Immunol. 37: 653-64.
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/MCA638GA 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (H/L) (STAR117...) HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

Recommended Useful Reagents

MOUSE ANTI PIG Ig LAMBDA LIGHT CHAIN (MCA633GA)
MOUSE ANTI PIG IgA SECRETORY COMPONENT (MCA634GA)
MOUSE ANTI PIG IgG1 (MCA635GA)
MOUSE ANTI PIG IgG2 (MCA636GA)
MOUSE ANTI PIG IgM (MCA637GA)

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