

Datasheet: MCA636GA

Description:	MOUSE ANTI PIG IgG2
Specificity:	IgG2
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	K68 Ig2
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	■			1/1000 - 1/50,000
Immunoprecipitation			■	
Western Blotting			■	

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 - 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 IgG2
Fusion Partners	Spleen cells from immunised mice were fused with cells of the mouse P3-X63-Ag8.653 myeloma

Specificity

Mouse anti Pig IgG2, clone K68 Ig2 recognizes porcine IgG2 and shows no cross-reactivity with IgG1, IgA or IgM. IgG2 (IgG2a and IgG2b), along with IgG1, IgG3 and IgG4 comprise the major known subclasses of IgG in swine. Combined, the various subclasses of IgG comprise approximately 85% of immunoglobulin in porcine serum.

Studies using clone K68 Ig2 have demonstrated that along with IFN γ , porcine IgG2 levels are significantly elevated in parasite infections by worm species such as *Schistosoma japonicum* (Tian, F. et al. 2010). With changes in agricultural practices and the emergence of new strains of porcine diseases, it has been suggested that new methods of vaccine development should be investigated. Studies have shown that antibodies recognizing porcine immunoglobulins such as clone K68 Ig2 may have potential use in porcine vaccine development studies (Rodríguez-Calvo, T. et al. 2010).

Clone K68 Ig2 forms part of a range of monoclonal antibodies specific for porcine immunoglobulins and immunoglobulin subclasses that are available from Bio-Rad.

References

1. Rivera, E. et al. (2003) Ginseng extract in aluminium hydroxide adjuvanted vaccines improves the antibody response of pigs to porcine parvovirus and *Erysipelothrix rhusiopathiae*. [Vet Immunol Immunopathol. 91 \(1\): 19-27.](#)
2. Nejsum, P. et al. (2009) Population dynamics of *Trichuris suis* in trickle-infected pigs. [Parasitology. 136:691-7.](#)
3. Tian, F. et al. (2010) Immune Events Associated with High Level Protection against *Schistosoma japonicum* Infection in Pigs Immunized with UV-Attenuated Cercariae. [PLoS One. 2010 Oct 15;5\(10\):e13408.](#)
4. Bailey, M. et al. (2004) Effects of infection with transmissible gastroenteritis virus on concomitant immune responses to dietary and injected antigens [Clin Diagn Lab Immunol. 11:337-43.](#)
5. Lin, D. et al. (2011) Multiple vaccinations with UV- attenuated cercariae in pig enhance protective immunity against *Schistosoma japonicum* infection as compared to single vaccination. [Parasit Vectors. 4:103.](#)
6. Lefevre, E.A. et al. (2012) Immune responses in pigs vaccinated with adjuvanted and non-adjuvanted A(H1N1)pdm/09 influenza vaccines used in human immunization programmes. [PLoS One. 7: e32400.](#)
7. Baums CG et al. (2010) Immunogenicity of an autogenous *Streptococcus suis* bacterin in preparturient sows and their piglets in relation to protection after weaning. [Clin Vaccine Immunol. 17 \(10\): 1589-97.](#)
8. Jayashi, C.M. et al. (2012) Characterisation of antibody responses in pigs induced by recombinant oncosphere antigens from *Taenia solium*. [Vaccine. pii: S0264-410X\(12\)01503-4.](#)
9. Rodríguez-Calvo, T. et al. (2010) New vaccine design based on defective genomes that combines features of attenuated and inactivated vaccines. [PLoS One. 5: e10414.](#)
10. Schmied, J. et al. (2012) Effect of Heat-Killed *Escherichia coli*, Lipopolysaccharide, and Muramyl Dipeptide Treatments on the Immune Response Phenotype and Allergy in Neonatal Pigs Sensitized to the Egg White Protein Ovomucoid. [Clin Vaccine Immunol. 19:1955-64.](#)
11. Weber, T.E. and Spurlock, M.E. (2004) Leptin alters antibody isotype in the pig *in vivo*, but does not regulate cytokine expression or stimulate STAT3 signaling in peripheral blood monocytes *in vitro*. [J Anim Sci. 82:1630-40.](#)
12. 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.](#)
13. Blanco E et al. (2016) Full protection of swine against foot-and-mouth disease by a bivalent B-cell epitope dendrimer peptide. [Antiviral Res. Mar 5. pii: S0166-3542\(16\)30132-2. \[Epub ahead of print\]](#)
14. Goyette-Desjardins G et al. (2016) Protection against *Streptococcus suis* Serotype 2 Infection Using a Capsular Polysaccharide Glycoconjugate Vaccine. [Infect Immun. 84 \(7\): 2059-75.](#)

15. Williams, A.R. *et al.* (2017) Dietary cinnamaldehyde enhances acquisition of specific antibodies following helminth infection in pigs. [Vet Immunol Immunopathol. 189: 43-52.](#)

Storage	Store at +4°C or at -20°C 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.
Shelf Life	18 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 (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®549 , DyLight®649 , DyLight®680 , DyLight®800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Human Anti Mouse IgG1 (HCA036...)	HRP

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

Recommended Useful Reagents

[MOUSE ANTI PIG IgG1 \(MCA635GA\)](#)

[MOUSE ANTI PIG IgA \(MCA638GA\)](#)

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

'M316261:180503'

Printed on 05 May 2018