

Datasheet: MCA2599GA

BATCH NUMBER 174461

Description:	MOUSE ANTI PIG GRANULOCYTES
Specificity:	GRANULOCYTES (NEUTROPHIL LINEAGE)
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	6D10
Isotype:	IgG2a
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	▪			1/25 - 1/200
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting (1)	▪			

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.

(1)Clone 6D10 recongnizes an antigen from porcine granulocytes under non-reducing conditions

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 bone marrow haematopoietic cells (BMHC).
Fusion Partners	Spleen cells from immunized Balb/c mouse were fused with cells of the SP2/0 mouse myeloma cell line.
Specificity	Mouse anti Pig Granulocytes antibody, clone 6D10 recognizes a ~60 kDa antigen on porcine granulocytes of the neutrophil lineage, acting as a reliable tool for their analysis and isolation, without contamination from other cells. Expression of the antigen recognized by clone 6D10 decreases from the immature promyelocytes, through myelocytes and metamyelocytes, to the mature neutrophils, thereby enabling the identification of neutrophil developmental stages. Furthermore, use of clone 6D10 in conjunction with clone 2B2 (MCA2600), allows for the discrimination and characterisation of different porcine granulocyte lineages and also their developmental stages: 6D10⁻2B2⁻ early myeloid precursors, 6D10⁺2B2⁻ immature neutrophils, 6D10⁺2B2⁺ mature neutrophils and 6D10⁻2B2⁺ mature eosinophils and basophils. Mouse anti Pig Granulocytes antibody, clone 6D10 has been shown as suitable for use on cytopins (Pérez et al. 2007).
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.
Western Blotting	MCA2599GA detects a band of approximately 60kDa in porcine BMHC cell lysates.
References	1. Pérez, C. <i>et al.</i> (2007) Phenotypic and functional characterization of porcine granulocyte developmental stages using two new markers. Dev Comp Immunol. 31 (3): 296-306. 2. Ezquerro, A. <i>et al.</i> (2009) Porcine myelomonocytic markers and cell populations. Dev Comp Immunol. 33 (3): 284-98. 3. Stone, J.P. <i>et al.</i> (2016) Altered Immunogenicity of Donor Lungs via Removal of Passenger Leukocytes Using <i>Ex Vivo</i> Lung Perfusion. Am J Transplant. 16 (1): 33-43. 4. Gardner, D.S. <i>et al.</i> (2016) Remote effects of acute kidney injury in a porcine model. Am J Physiol Renal Physiol. 310 (4): F259-71. 5. Nguyen, D.N. <i>et al.</i> (2016) Delayed development of systemic immunity in preterm pigs as a model for preterm infants. Sci Rep. 6: 36816. 6. Andersen, A.D. <i>et al.</i> (2019) Synbiotics Combined with Glutamine Stimulate Brain Development and the Immune System in Preterm Pigs. J Nutr. 149 (1): 36-45. 7. Forner, R. <i>et al.</i> (2021) Distribution difference of colostrum-derived B and T cells subsets in gilts and sows. PLoS One. 16 (5): e0249366. 8. dos Santos, M.C. <i>et al.</i> (2023) Effect of yeast extracted β-glucans on the immune response and reproductive performance of gilts in the adaptation, gestation, and lactation periods Livestock Sci. 275: 105289. 9. Haach, V. <i>et al.</i> (2023) A polyvalent virosomal influenza vaccine induces broad cellular

and humoral immunity in pigs. [Virology. 20 \(1\): 181.](#)

10. Weigand, M. *et al.* (2020) Proteome profile of neutrophils from a transgenic diabetic pig model shows distinct changes. [J Proteomics. 224: 103843.](#)

11. 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.](#)

Further Reading	1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. Vet Res. 39: 54.
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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.
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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
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Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA2599GA
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Regulatory	For research purposes only
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Related Products

Recommended Secondary Antibodies

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

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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