Datasheet: MCA2598GA

BATCH NUMBER 162887

Description:	MOUSE ANTI PIG CD117
Specificity:	CD117
Other names:	C-KIT
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	2B8/BM
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	▪			1/10 - 1/20
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation (1)	▪			
Western Blotting (2)	▪			

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)**Enrichment of 2B8/BM+ BMC population required by depletion of CD3+, 6D10+ and CD163+ cells. Please see Pérez, C. *et al.* (2007) for details.**

(2)**Enrichment of 2B8/BM+ BMC population required by depletion of CD3+, 6D10+ and CD163+ cells. Please see Pérez, C. *et al.* (2007) for details.**

Target Species	Pig
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 1.0mg/ml
Immunogen	Porcine bone marrow cells (BMC).
External Database Links	**UniProt:** Q2HWD6 Related reagents **Entrez Gene:** 396810 KIT Related reagents
Fusion Partners	Spleen cells from immunized Balb/c mouse were fused with cells of the Sp2/0 myeloma cell line.
Specificity	**Mouse anti Pig CD117, clone 2B8/BM** is specific for porcine CD117, also known as c-kit, a 155 kDa type I transmembrane protein with protein tyrosine kinase activity, which plays an important role in early hematopoiesis (Perez *et al.* 2007). Hematopoietic stem cells (HSC) of bone marrow have multilineage differentiation potential and an extensive capacity for self-renewal. The majority of adult bone marrow hematopoietic progenitor cells are CD117+ and have been used successfully in xenograft transplantation models for long term survival of grafts, without symptoms of graft-versus-host disease (GVHD). Mouse anti pig CD117, clone 2B8/BM recognizes CD117 on a small subset of porcine bone marrow progenitor cells and therefore provides an alternative tool from the previously used c-kit ligand stem cell factor, for the isolation and enrichment of porcine stem cells.
Flow Cytometry	Use 10ul of the suggested working dilution to label $1x10^6$ cells in 100ul.
Western Blotting	Clone 2B8/BM detects a band of approximately 155kDa in enriched porcine bone marrow cell lysates under non-reducing conditions.
References	1. Pérez C *et al.* (2007) Characterisation of porcine bone marrow progenitor cells identified by the anti-c-kit (CD117) monoclonal antibody 2B8/BM. J Immunol Methods. 321 (1-2): 70-9. 2. Hatzistergos, K.E. *et al.* (2010) Bone marrow mesenchymal stem cells stimulate cardiac stem cell proliferation and differentiation. Circ Res. 107: 913-22. 3. Escalona, Z. *et al.* (2014) Molecular characterization and expression of porcine Siglec-5. Dev Comp Immunol. 44 (1): 206-16.

4. Wehman, B. *et al.* (2016) Mesenchymal Stem Cells Preserve Neonatal Right Ventricular Function In A Porcine Model Of Pressure Overload. Am J Physiol Heart Circ Physiol. Apr 22:ajpheart.00955.2015. [Epub ahead of print]
5. Wehman, B. *et al.* (2016) Intracoronary Stem Cell Delivery to the Right Ventricle: A Preclinical Study. Semin Thorac Cardiovasc Surg. 28 (4): 817-24.
6. Wehman, B. *et al.* (2017) Cardiac Progenitor Cells Enhance Neonatal Right Ventricular Function After Pulmonary Artery Banding. Ann Thorac Surg. 104 (6): 2045-53.
7. Arenal, Á. *et al.* (2022) Effects of Cardiac Stem Cell on Postinfarction Arrhythmogenic Substrate. Int J Mol Sci. 23 (24): 16211.

Further Reading	1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. Vet Res. 39: 54.
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/MCA2598GA 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

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

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

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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