

Datasheet: MCA2598GA

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	IgG concentration 1.0mg/ml

Concentrations

Immunogen	Porcine bone marrow cells (BMC).
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External Database Links

UniProt:

[Q2HWD6](#)

[Related reagents](#)

Entrez Gene:

[396810](#)

KIT

[Related reagents](#)

Fusion Partners	Spleen cells from immunised Balb/c mouse were fused with cells of the Sp2/0 myeloma cell line.
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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.
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Western Blotting	Clone 2B8/BM detects a band of approximately 155kDa in enriched porcine bone marrow cell lysates under non-reducing conditions.
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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.](#)

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

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. 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.
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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 \(MCA928\)](#)

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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