Datasheet: MCA2598A488

Description:	MOUSE ANTI PIG CD117:Alexa Fluor® 488
Specificity:	CD117
Other names:	C-KIT
Format:	ALEXA FLUOR® 488
Product Type:	Monoclonal Antibody
Clone:	2B8/BM
Isotype:	IgG1
Quantity:	100 TESTS/1ml

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	▪			Neat

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 conjugated to Alexa Fluor® 488 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®488	495	519

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)
1% Bovine Serum Albumin

Approx. Protein Concentrations

IgG concentration 0.05mg/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 immunised 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.
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.
Storage	Store at +4^{o}C or at -20^{o}C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. This product is photosensitive and should be protected from light. 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 #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 488 (MCA928A488)

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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