

Datasheet: MCA2598A488

**BATCH NUMBER 173141**

<b>Description:</b>	MOUSE ANTI PIG CD117:Alexa Fluor® 488
<b>Specificity:</b>	CD117
<b>Other names:</b>	C-KIT
<b>Format:</b>	ALEXA FLUOR® 488
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	2B8/BM
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://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.

<b>Target Species</b>	Pig		
<b>Product Form</b>	Purified IgG conjugated to Alexa Fluor® 488 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	Alexa Fluor®488	495	519
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin		
<b>Approx. Protein</b>	IgG concentration 0.05mg/ml		

## Concentrations

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**Immunogen** Porcine bone marrow cells (BMC).

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## External Database Links

**UniProt:**

[Q2HWD6](#)    [Related reagents](#)

**Entrez Gene:**

[396810](#)    KIT    [Related reagents](#)

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**RRID** AB\_1125233

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**Fusion Partners** Spleen cells from immunized 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.

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**Flow Cytometry** Use 10ul of the suggested working dilution to label  $1 \times 10^6$  cells in 100ul.

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## References

1. Hatzistergos, K.E. *et al.* (2010) Bone marrow mesenchymal stem cells stimulate cardiac stem cell proliferation and differentiation. [Circ Res. 107: 913-22.](#)
  2. Escalona, Z. *et al.* (2014) Molecular characterization and expression of porcine Siglec-5. [Dev Comp Immunol. 44 \(1\): 206-16.](#)
  3. 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. 310 \(11\): H1816-26.](#)
  4. Wehman, B. *et al.* (2016) Intracoronary Stem Cell Delivery to the Right Ventricle: A Preclinical Study. [Semin Thorac Cardiovasc Surg. 28 \(4\): 817-24.](#)
  5. Wehman, B. *et al.* (2017) Cardiac Progenitor Cells Enhance Neonatal Right Ventricular Function After Pulmonary Artery Banding. [Ann Thorac Surg. 104 \(6\): 2045-53.](#)
  6. Arenal, Á. *et al.* (2022) Effects of Cardiac Stem Cell on Postinfarction Arrhythmogenic Substrate. [Int J Mol Sci. 23 \(24\): 16211.](#)
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## Further Reading

1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update.

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<b>Storage</b>	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	<p>This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchase product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or <a href="mailto:outlicensing@thermofisher.com">outlicensing@thermofisher.com</a></p>
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2598A488">https://www.bio-rad-antibodies.com/SDS/MCA2598A488</a>
<b>Regulatory</b>	For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 488 \(MCA928A488\)](#)

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://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](http://bio-rad-antibodies.com/datasheets)  
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