

Datasheet: MCA1757A647

**BATCH NUMBER 1806**

<b>Description:</b>	MOUSE ANTI HUMAN MYELOPEROXIDASE:Alexa Fluor® 647
<b>Specificity:</b>	MYELOPEROXIDASE
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	2C7
<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 (1)	▪			Neat

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls

**(1) Membrane permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.**

Target Species	Human								
Species Cross Reactivity	<p>Reacts with: Dog</p> <p>Does not react with:Rat</p> <p><b>N.B.</b> Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.</p>								
Product Form	Purified IgG conjugated to Alexa Fluor 647 - liquid								
Max Ex/Em	<table><tr><th>Fluorophore</th><th>Excitation Max (nm)</th><th>Emission Max (nm)</th></tr><tr><td>Alexa Fluor®647</td><td>650</td><td>665</td></tr></table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	Alexa Fluor®647	650	665		
Fluorophore	Excitation Max (nm)	Emission Max (nm)							
Alexa Fluor®647	650	665							
Preparation	Purified IgG prepared by affinity chromatography on Protein G								

<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 Concentrations</b>	IgG concentration 0.05 mg/ml
<b>Immunogen</b>	Human myeloperoxidase
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P05164</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">4353</a>    MPO    <a href="#">Related reagents</a></p>
<b>Fusion Partners</b>	Spleen cells from immunized mice were fused with cells of the mouse X63 AG8-653 myeloma cell line
<b>Specificity</b>	<p><b>Mouse anti Human myeloperoxidase antibody, clone 2C7</b> recognizes human myeloperoxidase (MPO). MPO is an important component of azurophilic granules in neutrophils, being involved in microbicidal processes. The protein is a multimer of 2 heavy chains (55 kDa) and two light chains (15 kDa), the heavy chains being linked by a disulphide bond.</p> <p>Mouse anti Human Myeloperoxidase antibody, clone 2C7 recognizes native MPO in Western blots, and the heavy chain following boiling of the sample. Mouse anti Human Myeloperoxidase antibody, clone 2C7 also recognizes recombinant MPO in western blots and weakly in ELISA.</p> <p>Mouse anti Human myeloperoxidase antibody, clone 2C7 may be of value in the study of myeloid cells and myeloid leukaemias by flow cytometry following cell permeabilization. Mouse anti Human myeloperoxidase antibody, clone 2C7 did not recognize rat MPO by ELISA (<a href="#">Patry <i>et al.</i> 2003</a>).</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul
<b>References</b>	<ol style="list-style-type: none"> <li>1. Villiers, E. <i>et al.</i> (2006) Identification of acute myeloid leukemia in dogs using flow cytometry with myeloperoxidase, MAC387, and a canine neutrophil-specific antibody. <a href="#">Vet Clin Pathol. 35 (1): 55-71.</a></li> <li>2. Patry, Y.C. <i>et al.</i> (2003) Difference in antigenic determinant profiles between human and rat myeloperoxidase. <a href="#">Clin Exp Immunol. 132 (3): 505-8.</a></li> <li>3. Zhang, N. <i>et al.</i> (2008) Different types of T-effector cells orchestrate mucosal inflammation in chronic sinus disease. <a href="#">J Allergy Clin Immunol. 122: 961-8.</a></li> <li>4. Sloane, A.J. <i>et al.</i> (2005) Proteomic analysis of sputum from adults and children with cystic fibrosis and from control subjects. <a href="#">Am J Respir Crit Care Med. 172: 1416-26.</a></li> <li>5. Luo, B. <i>et al.</i> (2013) Immunopathology features of chronic rhinosinusitis in high-altitude</li> </ol>

dwelling Tibetans. [Allergy Rhinol \(Providence\). 4: e69-76.](#)

6. Behnen, M. *et al.* (2014) Immobilized immune complexes induce neutrophil extracellular trap release by human neutrophil granulocytes via FcγRIIIB and Mac-1. [J Immunol. 193 \(4\): 1954-65.](#)

7. Villiers, E. *et al.* (2006) Identification of acute myeloid leukemia in dogs using flow cytometry with myeloperoxidase, MAC387, and a canine neutrophil-specific antibody. [Vet Clin Pathol. 35 \(1\): 55-71.](#)

8. Gelain, M.E. *et al.* (2014) CD44 in canine leukemia: analysis of mRNA and protein expression in peripheral blood. [Vet Immunol Immunopathol. 159 \(1-2\): 91-6.](#)

9. Wang, H. *et al.* (2016) Circulating Level of Neutrophil Extracellular Traps Is Not a Useful Biomarker for Assessing Disease Activity in Antineutrophil Cytoplasmic Antibody-Associated Vasculitis. [PLoS One. 11 \(2\): e0148197.](#)

10. Rai, A.K. *et al.* (2017) Exonal switch down-regulates the expression of CD5 on blasts of acute T cell leukaemia. [Clin Exp Immunol. 190 \(3\): 340-350.](#)

11. Novacco, M. *et al.* (2016) Prognostic factors in canine acute leukaemias: a retrospective study. [Vet Comp Oncol. 14 \(4\): 409-16.](#)

12. Helseth, R. *et al.* (2019) Glucose associated NETosis in patients with ST-elevation myocardial infarction: an observational study. [BMC Cardiovasc Disord. 19 \(1\): 221.](#)

Storage	<p>Store at +4°C or at -20°C if preferred.</p> <p>Storage in frost-free freezers is not recommended.</p> <p>This product should be stored undiluted. This product is photosensitive and should be protected from light.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use</p>
Guarantee	12 months from date of despatch
Acknowledgements	<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 purchased 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>
Health And Safety Information	<p>Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1757A647">https://www.bio-rad-antibodies.com/SDS/MCA1757A647</a></p> <p>10041</p>
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA928A647\)](#)

## Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

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