

Datasheet: MCA1757A647

Description:	MOUSE ANTI HUMAN MYELOPEROXIDASE: Alexa Fluor® 647
Specificity:	MYELOPEROXIDASE
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	2C7
Isotype:	lgG1
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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	•			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.

(1) Membrane permeabilization is required for this application. The use of Leucoperm (Product Code <u>BUF09</u>) is recommended for this purpose.

Human			
Reacts with: Dog			
Does not react with	n:Rat		
reactivity is derived personal communic	d from testing within our l cations from the originate	aboratories, peer-revi	ewed publications or
Purified IgG conjug	gated to Alexa Fluor® 64	7 - liquid	
Fluorophore	Excitation Max (nm)	Emission Max (nm)	
Alexa Fluor®647	650	665	
Purified IgG prepar supernatant	red by affinity chromatog	raphy on Protein A fro	om tissue culture
	Reacts with: Dog Does not react with  N.B. Antibody react reactivity is derived personal communit further information.  Purified IgG conjug  Fluorophore Alexa Fluor®647  Purified IgG prepail	Reacts with: Dog Does not react with:Rat  N.B. Antibody reactivity and working condition reactivity is derived from testing within our lapersonal communications from the originate further information.  Purified IgG conjugated to Alexa Fluor® 64  Fluorophore Excitation Max (nm) Alexa Fluor®647 650  Purified IgG prepared by affinity chromatoger	Reacts with: Dog Does not react with:Rat  N.B. Antibody reactivity and working conditions may vary between reactivity is derived from testing within our laboratories, peer-revision personal communications from the originators. Please refer to refurther information.  Purified IgG conjugated to Alexa Fluor® 647 - liquid  Fluorophore Excitation Max (nm) Emission Max (nm) Alexa Fluor®647 650 665  Purified IgG prepared by affinity chromatography on Protein A from

Buffer Solution	Phosphate buffered saline
Bullet Columnia	r nospriate bulleted salitie
Preservative Stabilisers	0.09% sodium azide (NaN <sub>3</sub> )
Stabilisers	1% bovine serum albumin
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml
Immunogen	Human myeloperoxidase
External Database Links	UniProt:
	P05164 Related reagents
	Entrez Gene:
	4353 MPO Related reagents
Fusion Partners	Spleen cells from immunized mice were fused with cells of the mouse X63 AG8-653 myeloma cell line
Specificity	Mouse anti Human myeloperoxidase antibody, clone 2C7 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.
	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.
	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 (Patry et al. 2003).
Flow Cytometry	Use 10μl of the suggested working dilution to label 10 <sup>6</sup> cells in 100μl
References	<ol> <li>Patry, Y.C. <i>et al.</i> (2003) Difference in antigenic determinant profiles between human and rat myeloperoxidase. <u>Clin Exp Immunol. 132 (3): 505-8.</u></li> <li>Sloane, A.J. <i>et al.</i> (2005) Proteomic analysis of sputum from adults and children with cystic fibrosis and from control subjects. <u>Am J Respir Crit Care Med. 172: 1416-26.</u></li> <li>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. <u>Vet Clin Pathol. 35 (1): 55-71.</u></li> </ol>

Clin Pathol. 35 (1): 55-71.

4. Villiers, E. *et al.* (2006) Identification of acute myeloid leukemia in dogs using flow cytometry with myeloperoxidase, MAC387, and a canine neutrophil-specific antibody. <u>Vet</u>

- 5. Luo, B. *et al.* (2013) Immunopathology features of chronic rhinosinusitis in high-altitude dwelling Tibetans. Allergy Rhinol (Providence). 4: e69-76.
- 6. 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.
- 7. Behnen, M. *et al.* (2014) Immobilized immune complexes induce neutrophil extracellular trap release by human neutrophil granulocytes via FcγRIIIB and Mac-1. <u>J Immunol. 193</u> (4): 1954-65.
- 8. Novacco, M. *et al.* (2016) Prognostic factors in canine acute leukaemias: a retrospective study. <u>Vet Comp Oncol. 14 (4): 409-16.</u>
- 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. Hoppenbrouwers, T. *et al.* (2018) Neutrophil Extracellular Traps in Children With Meningococcal Sepsis. Pediatr Crit Care Med. 19 (6): e286-e291.
- 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.
- 13. Manfredi, A.A. *et al.* (2021) Platelet phagocytosis via PSGL1 and accumulation of microparticles in systemic sclerosis. Arthritis Rheumatol. Jul 19 [Epub ahead of print].
- 14. de Moraes Mazetto, B. *et al.* (2022) Association between neutrophil extracellular traps (NETs) and thrombosis in antiphospholipid syndrome Thrombosis Res. 214: 132-7.
- 15. Robinson, H. *et al.* (2022) The effect of expressive writing on wound healing: Immunohistochemistry analysis of skin tissue two weeks after punch biopsy wounding. <u>J Psychosom Res. 161: 110987.</u>
- 16. Zhu, D. *et al.* (2024) Neutrophil activation biomarker pentraxin 3 for diagnosis and monitoring of macrophage activation syndrome occurrence in adult-onset Still's disease. <u>J Autoimmun. 144: 103182.</u>
- 17. Rogato, F. *et al.* (2024) Leukemia cutis as a prominent clinical sign in a dog with acute myeloid leukemia. <u>Vet Clin Pathol. 53 (4): 448-57.</u>

#### **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. This product is photosensitive and should be protected from light.

#### Guarantee

12 months from date of despatch

## Acknowledgements

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Health And Safety Information

Material Safety Datasheet documentation #10041 available at:

https://www.bio-rad-antibodies.com/SDS/MCA1757A647

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**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)

Fax: +1 919 878 3751

North & South Tel: +1 800 265 7376

America

Worldwide

Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739

Europe

Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50

Email: antibody\_sales\_us@bio-rad.com

Email: antibody\_sales\_uk@bio-rad.com

Email: antibody\_sales\_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M438127:250327'

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