Datasheet: MCA1757

BATCH NUMBER 160551

Description:	MOUSE ANTI HUMAN MYELOPEROXIDASE
Specificity:	MYELOPEROXIDASE
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	2C7
Isotype:	IgG1
Quantity:	0.2 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)	▪			1/50 - 1/100
Immunohistology - Frozen	▪			1/1000 - 1/5000
Immunohistology - Paraffin	▪			1/500 - 1/1000
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting (2)	▪			

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.**

(2)**2C7 recognises myeloperoxidase under non-reducing conditions, see Audrian *et al.* for details**

Target Species

Human

Species Cross Reactivity

Reacts with: Dog

Does not react with:Rat

N.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.

Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Human myeloperoxidase
External Database Links	**UniProt:** P05164 Related reagents **Entrez Gene:** 4353 MPO Related reagents
RRID	AB_2146467
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).
Histology Positive Control Tissue	Bone marrow
References	1. 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.
2. Patry, Y.C. *et al.* (2003) Difference in antigenic determinant profiles between human and rat myeloperoxidase. Clin Exp Immunol. 132 (3): 505-8.
3. Zhang, N. *et al.* (2008) Different types of T-effector cells orchestrate mucosal inflammation in chronic sinus disease. J Allergy Clin Immunol. 122: 961-8.
4. Sloane, A.J. *et al.* (2005) Proteomic analysis of sputum from adults and children with cystic fibrosis and from control subjects. Am J Respir Crit Care Med. 172: 1416-26.
5. Luo, B. *et al.* (2013) Immunopathology features of chronic rhinosinusitis in high-altitude 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.
13. Hoppenbrouwers, T. *et al.* (2018) Neutrophil Extracellular Traps in Children With Meningococcal Sepsis. Pediatr Crit Care Med. 19 (6): e286-e291.
14. 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].
15. de Moraes Mazetto, B. *et al.* (2022) Association between neutrophil extracellular traps (NETs) and thrombosis in antiphospholipid syndrome Thrombosis Res. 214: 132-7.

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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA1757 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

North & South America
Tel: +1 800 265 7376
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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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