

Datasheet: 0400-0002

Description:	MOUSE ANTI HUMAN MYELOPEROXIDASE
Specificity:	MYELOPEROXIDASE
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	4A4
Isotype:	IgG2b
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			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			
Western Blotting	▪			

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 the appropriate negative/positive controls.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from ascites
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	<0.1% Sodium Azide (NaN ₃)
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_617350

Specificity

Mouse anti Human Myeloperoxidase antibody, clone 4A4 recognizes 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.

References

1. Chatfield, S.M. *et al.* (2018) Monosodium Urate Crystals Generate Nuclease-Resistant Neutrophil Extracellular Traps via a Distinct Molecular Pathway. [J Immunol. 200 \(5\): 1802-16.](#)
2. Demoruelle, M.K. *et al.* (2017) Anti-Citrullinated Protein Antibodies Are Associated With Neutrophil Extracellular Traps in the Sputum in Relatives of Rheumatoid Arthritis Patients. [Arthritis Rheumatol. 69 \(6\): 1165-75.](#)
3. Demoruelle, M.K. *et al.* (2018) Antibody Responses to Citrullinated and Noncitrullinated Antigens in the Sputum of Subjects With Rheumatoid Arthritis and Subjects at Risk for Development of Rheumatoid Arthritis. [Arthritis Rheumatol. 70 \(4\): 516-27.](#)
4. Mikacenic, C. *et al.* (2018) Neutrophil extracellular traps (NETs) are increased in the alveolar spaces of patients with ventilator-associated pneumonia. [Crit Care. 22 \(1\): 358.](#)
5. Guo, L. *et al.* (2019) A high-risk luminal A dominant breast cancer subtype with increased mobility. [Breast Cancer Res Treat. 175 \(2\): 459-72.](#)
6. Helseth, R. *et al.* (2019) Neutrophil Extracellular Trap Components Associate with Infarct Size, Ventricular Function, and Clinical Outcome in STEMI. [Mediators of Inflammation. 2019: 1-10.](#)
7. Donkel, S.J. *et al.* (2021) Circulating Myeloperoxidase (MPO)-DNA complexes as marker for Neutrophil Extracellular Traps (NETs) levels and the association with cardiovascular risk factors in the general population. [PLoS One. 16 \(8\): e0253698.](#)
8. Zenlander, R. *et al.* (2021) Neutrophil extracellular traps in patients with liver cirrhosis and hepatocellular carcinoma. [Sci Rep. 11 \(1\): 18025.](#)
9. Zapponi, K.C.S. *et al.* (2021) Neutrophil activation and circulating neutrophil extracellular traps are increased in venous thromboembolism patients for at least one year after the clinical event. [J Thromb Thrombolysis. Aug 27 \[Epub ahead of print\].](#)
10. Kluge, K.E. *et al.* (2020) Complement Activation in Association with Markers of Neutrophil Extracellular Traps and Acute Myocardial Infarction in Stable Coronary Artery Disease. [Mediators Inflamm. 2020: 5080743.](#)
11. Langseth, M.S. *et al.* (2020) Double-Stranded DNA and NETs Components in Relation to Clinical Outcome After ST-Elevation Myocardial Infarction. [Sci Rep. 10 \(1\): 5007.](#)
12. Tilly, M.J. *et al.* (2022) Immunothrombosis and new-onset atrial fibrillation in the general population: the Rotterdam Study. [Clin Res Cardiol. 111 \(1\): 96-104.](#)
13. Takeuchi, S. *et al.* (2022) Elevated Myeloperoxidase-DNA Complex Levels in Sera of Patients with IgA Vasculitis. [Pathobiology. 89 \(1\): 23-8.](#)
14. Zhang, H. *et al.* (2022) Neutrophil extracellular traps mediate m⁶A modification and

regulates sepsis-associated acute lung injury by activating ferroptosis in alveolar epithelial cells. [Int J Biol Sci. 18 \(8\): 3337-3357.](#)

15. Zhan, X. *et al.* (2022) Elevated neutrophil extracellular traps by HBV-mediated S100A9-TLR4/RAGE-ROS cascade facilitate the growth and metastasis of hepatocellular carcinoma. [Cancer Commun \(Lond\). Nov 08 \[Epub ahead of print\].](#)

16. Liu, L. *et al.* (2022) Promising Neutrophil-Associated Biomarkers in Lung Diseases of Patients with Antisynthetase Syndrome and Dermatomyositis. [J Immunol Res. 2022: 1886083.](#)

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: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
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 (STAR13...) [HRP](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL \(MCA691\)](#)

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

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

'M405712:220916'

Printed on 17 Jan 2023

