

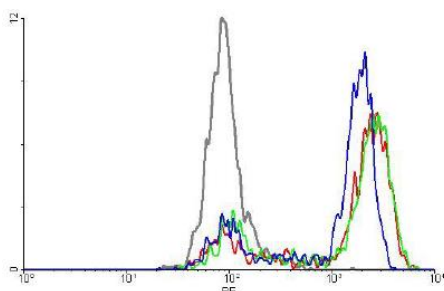
## CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

<b>Product name</b>	MPO, Rat, clone B7	<b>Expiry date</b>	-
<b>Catalog number</b>	HM3039-20UG	<b>Amount</b>	20 µg
<b>Lot number</b>	-	<b>Concentration</b>	100 µg/ml
<b>Volume</b>	200 µl	<b>Conjugate</b>	None
<b>Formulation</b>	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	<b>Purification</b>	Protein G
<b>Host Species</b>	Mouse IgG1		
<b>Endotoxin</b>	N.A.		
<b>Storage</b>	4°C		

### Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #								
Yes	•			•		•		•
No								
N.D.		•	•		•		•	

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot



FC: Flow cytometric detection of MPO in erythrocytes (mAb B7, Cat.# HM3039). Red, green and blue line represents 1, 0.5 and 0.1 µg/ml, respectively.

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- FC: Antibody B7 stains MPO. For intracellular staining leukocytes were permeabilized with permeabilisation buffer of Invitrogen. The cells were fixed in formaldehyde before staining. As positive control LPS stimulated mouse erythrocytes was used and as negative control unstimulated mouse erythrocytes.
- W: A reduced sample treatment and SDS-Page was used. The band size is 63 kDa.
- IHC-F: Tissue sections were fixed in acetone and pretreated with PBS and 30 minutes with 2% BSA-PBS solution for blocking. As positive control spleen of a wild-type mouse was used and as negative control slides of spleen tissue of a knock-out MPO mouse.
- Positive control: Neutrophils, HL-60 cells; Negative control: Cells stimulated with physiological saline.

### General Information

#### Description

The monoclonal antibody B7 recognizes rat myeloperoxidase (MPO), an ~135 glycoprotein expressed in all cells of the myeloid lineage. MPO functions as an  $\alpha_2\beta_2$  heteromultimer consisting of two heavy ( $\alpha$ ) and two light ( $\beta$ ) chains of 55 and 15 kDa respectively. MPO is abundantly present in azurophilic granules of polymorphonuclear neutrophils (PMNs). It is an important enzyme used during phagocytic lysis of engulfed foreign particles which takes part in the defense of the organism through production of hypochlorous acid (HOCl), a potent oxidant. In the stimulated PMN, MPO catalyzes the production of hypohalous acids, primarily hypochlorous acid in physiologic situations, and other toxic intermediates that greatly enhance PMN microbicidal activity. Upon activation of neutrophils, MPO can be rapidly released and as such useful in body fluids as marker for inflammatory status. Involvement of MPO has been described in numerous diseases such as atherosclerosis, lung cancer, Alzheimer's disease, inflammatory bowel disease and multiple sclerosis. Autoimmune antibodies to MPO (so called ANCA) are involved in Wegener's disease. Since the discovery of MPO deficiency, initially regarded as rare and restricted to patients suffering from severe infections, MPO has attracted more clinical attention.

<b>Immunogen</b>	Mouse MPO
<b>Aliases</b>	Myeloperoxidase
<b>Cross reactivity</b>	Human: Yes; Mouse: Yes
<b>Storage&amp;stability</b>	Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.
<b>Precautions</b>	For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

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We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC  
Brenda Teunissen

Date  
11/01/2021

Do you have any questions or comments regarding this product? Please contact us via [support@hycultbiotech.com](mailto:support@hycultbiotech.com).