



Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

Store at -20C
#4162

Myeloperoxidase (L607) Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 60, 80-90	Source/Isotype: Rabbit	UniProt ID: #P05164	Entrez-Gene Id: 4353
-------------------------------	-----------------------------	-----------------------------------	-------------------------------	----------------------------------	-------------------------------	--------------------------------

Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Myeloperoxidase (L607) Antibody detects endogenous levels of total myeloperoxidase protein. The antibody detects the heavy chain of myeloperoxidase.

Species predicted to react based on 100% sequence homology

Monkey

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu607 of human myeloperoxidase. Antibodies were purified by protein A and peptide affinity chromatography.

Background

Myeloperoxidase (MPO) is a peroxidase enzyme that is part of the host defense system of polymorphonuclear leukocytes (reviewed in 1). The gene for MPO was cloned independently from several laboratories (2-5). A decrease in MPO expression was noticed upon differentiation of HL-60 cells (5). MPO catalyzes the reaction of hydrogen peroxide and chloride (or other halides) to produce hypochlorous acid and other potent antimicrobial oxidants. Knockout mice of MPO are impaired in clearing select microbial infections (6). Processing of mature MPO from an initial 80-90 kDa translation product involves insertion of a heme moiety, glycosylation, and proteolytic cleavage. The mature protein is a tetramer of two heavy chains (60 kDa) and two light chains (12 kDa). It is abundantly expressed in neutrophils and monocytes and secreted during their activation. Heightened MPO levels have been associated with tissue damage and a number of pathological conditions (1).

Background References

1. Klebanoff, S.J. (2005) *J Leukoc Biol* 77, 598-625.
2. Chang, K.S. et al. (1986) *Blood* 68, 1411-4.
3. Yamada, M. et al. (1987) *Arch Biochem Biophys* 255, 147-55.
4. Morishita, K. et al. (1987) *J Biol Chem* 262, 3844-51.
5. Weil, S.C. et al. (1987) *Proc Natl Acad Sci USA* 84, 2057-61.
6. Aratani, Y. et al. (2002) *J Infect Dis* 185, 1833-7.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless

separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.