Myeloperoxidase (L607) Antibody

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).

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

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 References:

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.

Recommended Antibody Dilutions:
Western blotting 1:1000
Immunoprecipitation 1:100

For application specific protocols please see the web page for this product at www.cellsignal.com.

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