

For Research Use Only

MPO Monoclonal antibody

Catalog Number: 66177-1-Ig

Featured Product

55 Publications



Basic Information

Catalog Number:

66177-1-Ig

Size:

150ul, Concentration: 700 ug/ml by Nanodrop and 700 ug/ml by Bradford method using BSA as the standard;

Source:

Mouse

Isotype:

IgA

Immunogen Catalog Number:

AG17564

GenBank Accession Number:

BC130476

GeneID (NCBI):

4353

UNIPROT ID:

P05164

Full Name:

myeloperoxidase

Calculated MW:

745 aa, 84 kDa

Observed MW:

90 kDa

Purification Method:

Caprylic acid/ammonium sulfate precipitation

CloneNo.:

4C11F6

Recommended Dilutions:

WB 1:1000-1:8000

IHC 1:400-1:1600

IF-P 1:200-1:800

IF/ICC 1:200-1:800

Applications

Tested Applications:

WB, IHC, IF/ICC, IF-P, FC (Intra), ELISA

Cited Applications:

WB, IHC, IF, IP, ELISA

Species Specificity:

human, rat

Cited Species:

human, rat, bovine, cow

Positive Controls:

WB: HL-60 cells,

IHC: human liver tissue, human tonsillitis tissue

IF-P: human appendicitis tissue,

IF/ICC: HL-60 cells,

Note-IHC: suggested antigen retrieval with *TE buffer pH 9.0*; (*) Alternatively, antigen retrieval may be performed with *citrate buffer pH 6.0*

Background Information

The MPO gene encodes myeloperoxidase, a lysosomal hemoprotein located in the azurophilic granules of polymorphonuclear (PMN) leukocytes and monocytes. In response to stimulation, MPO is activated into a transient intermediate with potent antimicrobial oxidizing abilities (PMID:17650507). The mRNA is translated into a single protein of 90 kDa, which displays enzymatic activity and undergoes proteolytic maturation into a heavy chain of 59 kDa and a light chain of 13.5 kDa; these subunits then dimerize into the mature tetramer and the mature MPO is a heterotetramer composed of two identical heavy chains and two identical light chains (PMID:12773517). Fragments with molecular masses of 43-47 kDa were formed by autocatalysis during warming in sample buffer (PMID:12960244). The 24-kDa material had a map identical to that of 13.5 kDa subunit and represents a dimer of the 13.5 kDa subunit (PMID:3008892). Defects in MPO are the cause of myeloperoxidase deficiency (MPOD). It has 3 isoforms produced by alternative splicing.

Notable Publications

Author	Pubmed ID	Journal	Application
Guanxin Lv	34631861	Front Vet Sci	IF
Zichao Cao	36177002	Front Immunol	IHC
Zhiyong Wu	27830014	Am J Transl Res	IHC

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

***** 20ul sizes contain 0.1%BSA**

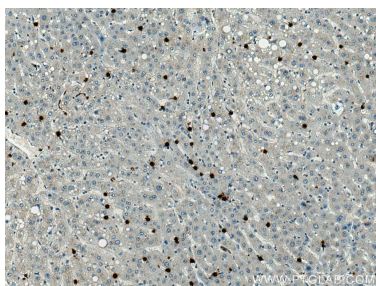
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

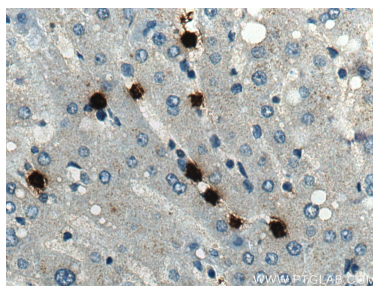
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

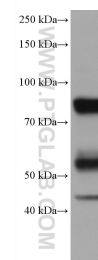
Selected Validation Data



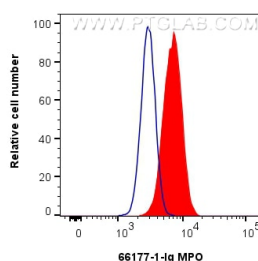
Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 66177-1-Ig (MPO antibody) at dilution of 1:800 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



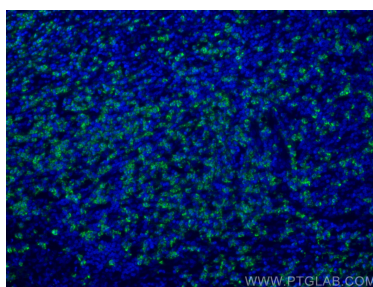
Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 66177-1-Ig (MPO antibody) at dilution of 1:800 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



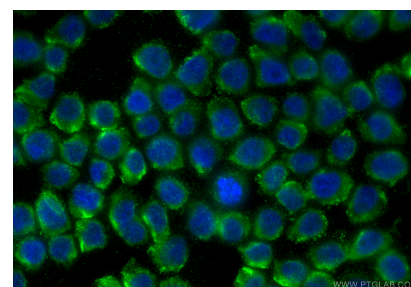
HL-60 cells were subjected to SDS PAGE followed by western blot with 66177-1-Ig (MPO antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



1x10⁶ HL-60 cells were intracellularly stained with 0.25 ug MPO Monoclonal antibody (66177-1-Ig, Clone:4C11F6) and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1)(red), or 0.25 ug Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded human appendicitis tissue using MPO antibody (66177-1-Ig, Clone: 4C11F6) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HL-60 cells using MPO antibody (66177-1-Ig, Clone: 4C11F6) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1).