

For Research Use Only

# MPO Polyclonal antibody

Catalog Number: 22225-1-AP **159 Publications**



## Basic Information

<b>Catalog Number:</b> 22225-1-AP	<b>GenBank Accession Number:</b> BC130476	<b>Purification Method:</b> Antigen affinity purification
<b>Concentration:</b> 600 ug/ml	<b>GeneID (NCBI):</b> 4353	<b>Recommended Dilutions:</b> WB 1:1000-1:6000
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P05164	IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
<b>Isotype:</b> IgG	<b>Full Name:</b> myeloperoxidase	IHC 1:50-1:500
<b>Immunogen Catalog Number:</b> AG17564	<b>Calculated MW:</b> 745 aa, 84 kDa	IF-P 1:50-1:500
	<b>Observed MW:</b> 59 kDa	

## Applications

<b>Tested Applications:</b> WB, IHC, IF-P, IP, ELISA	<b>Positive Controls:</b>
<b>Cited Applications:</b> WB, IHC, IF, ELISA	<b>WB :</b> HL-60 cells, U-937 cells
<b>Species Specificity:</b> human, mouse, rat	<b>IP :</b> HL-60 cells,
<b>Cited Species:</b> human, mouse, rat, bovine, hamster	<b>IHC :</b> human colon cancer tissue, human liver tissue, human spleen tissue
<b>Note-IHC:</b> suggested antigen retrieval with <b>TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b>	<b>IF-P :</b> human tonsillitis tissue,

## 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. This antibody is specific to MPO.

## Notable Publications

Author	Pubmed ID	Journal	Application
Dayun Feng	36179025	Sci Adv	IF
Tingting Qin	36225585	Front Pharmacol	IHC, WB
Chaoqun Hou	31541854	Biomed Pharmacother	IHC

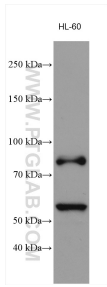
## Storage

**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**

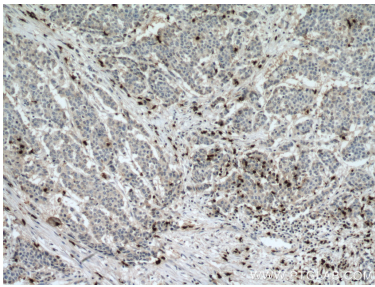
For technical support and original validation data for this product please contact:  
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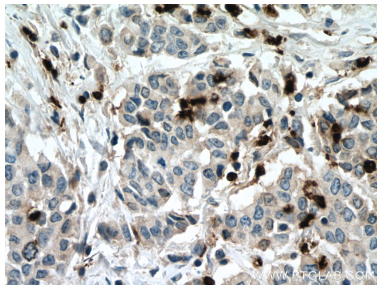
Selected Validation Data



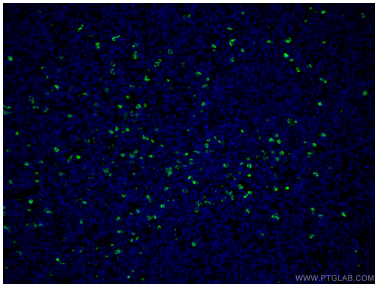
HL-60 cells were subjected to SDS PAGE followed by western blot with 22225-1-AP (MPO antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



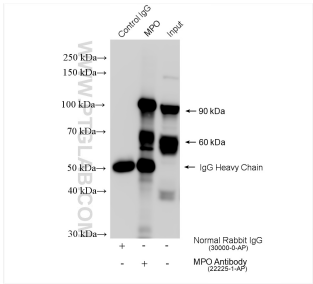
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 22225-1-AP (MPO antibody) at dilution of 1:200 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 22225-1-AP (MPO antibody) at dilution of 1:200 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed human tonsillitis tissue using 22225-1-AP (MPO antibody) at dilution of 1:50 and CoraLite488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



IP result of anti-MPO (IP:22225-1-AP, 4ug; Detection:22225-1-AP 1:4000) with HL-60 cells lysate 1720 ug.