For Research Use Only

MPO Recombinant antibody

Catalog Number:81610-1-RR Featured Product 1 Publications

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Basic Information

Catalog Number:
81610-1-RR

Concentration:
1000 ug/ml

Source:
Rabbit

Isotype:
IgG

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:
59 kDa, 90 kDa

Purification Method:
Protein A purification

CloneNo.:
3J17

Recommended Dilutions:
WB 1:5000-1:50000
IHC 1:800-1:3200
IF/ICC 1:800-1:3200

Applications

Tested Applications:
WB, IHC, IF/ICC, FC (Intra), ELISA

Cited Applications:
WB, IF

Species Specificity:
human

Cited Species:
human

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

Positive Controls:

WB : HL-60 cells, human saliva

IHC : human liver tissue, human colon cancer tissue

IF/ICC : HL-60 cells,

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

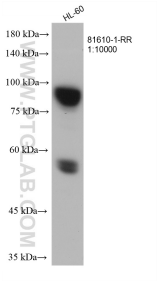
Author	Pubmed ID	Journal	Application
Yurong Lu	39718052	Placenta	WB,IF

Storage

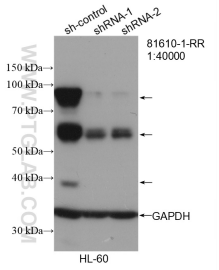
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

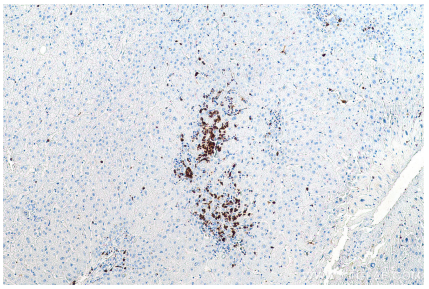
Selected Validation Data



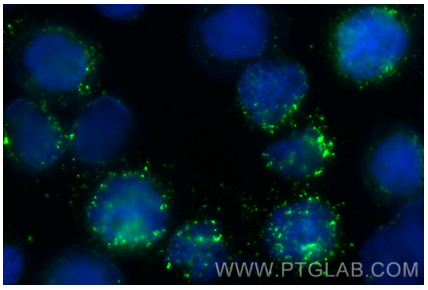
HL-60 cells were subjected to SDS PAGE followed by western blot with 81610-1-RR (MPO antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



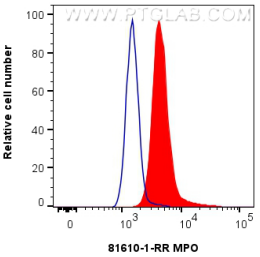
WB result of MPO antibody (81610-1-RR; 1:40000; incubated at room temperature for 1.5 hours) with sh-Control and sh-MPO transfected HL-60 cells.



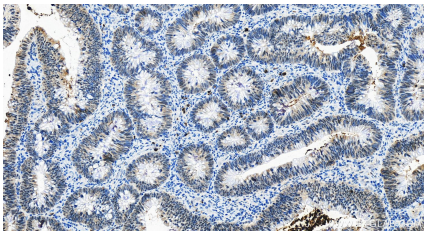
Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 81610-1-RR (MPO antibody) at dilution of 1:1600 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



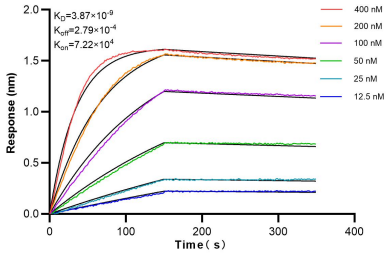
Immunofluorescent analysis of (4% PFA) fixed HL-60 cells using MPO antibody (81610-1-RR, Clone: 3J17) at dilution of 1:1600 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



1x10^6 HL-60 cells were intracellularly stained with 0.25 ug MPO Recombinant antibody (81610-1-RR, Clone:3J17) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.25 ug Rabbit IgG Isotype Control RecAb (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 81610-1-RR (MPO antibody) at dilution of 1:800 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Biolayer interferometry (BLI) kinetic assays of 81610-1-RR against Human MPO were performed. The affinity constant is 3.87 nM.