

# CPTC-MPO-1 (CAB080352)

**Uniprot ID:** [P05164](#)

**Protein name:** PERM\_HUMAN

**Full name:** Myeloperoxidase

**Function:** Part of the host defense system of polymorphonuclear leukocytes. It is responsible for microbicidal activity against a wide range of organisms. In the stimulated PMN, MPO catalyzes the production of hypohalous acids, primarily hypochlorous acid in physiologic situations, and other toxic intermediates that greatly enhance PMN microbicidal activity (PubMed:9922160). Mediates the proteolytic cleavage of alpha-1-microglobulin to form t-alpha-1-microglobulin, which potently inhibits oxidation of low-density lipoprotein particles and limits vascular damage (PubMed:25698971).

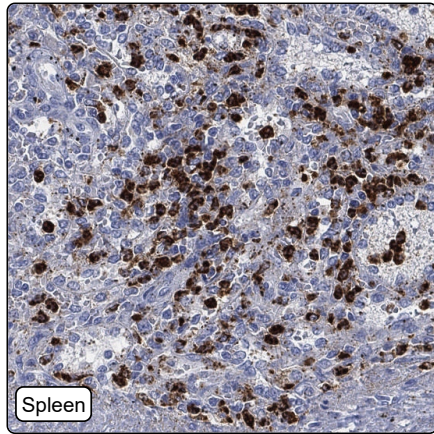
**Subcellular location:**

Lysosome

**Protein existence:** Experimental evidence at protein level

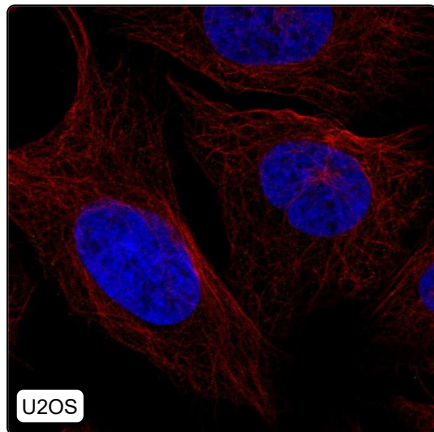
**Comment:**

## Immunohistochemistry



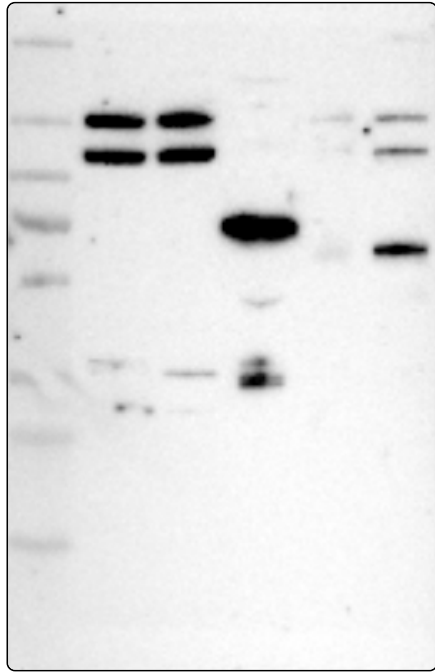
<b>IHC protocol:</b>	HIER pH6, Dilution 1:30000
<b>IHC test staining:</b>	Cytoplasmic positivity in bone marrow and peripheral immune cells.
<b>Literature conformance:</b>	Consistent with extensive gene/protein characterization data
<b>Literature significance:</b>	
<b>RNA similarity:</b>	High consistency between antibody staining and RNA expression data
<b>RNA tissue specificity:</b>	Tissue enriched (bone marrow)
<b>RNA tissue distribution:</b>	Detected in many
<b>IHC Sibling similarity:</b>	Other antibody shows partly similar IHC staining pattern

## Immunofluorescence



<b>IF Overlay:</b>	antibody (green), anti-tubulin (red) and DAPI (blue)
<b>IF main location:</b>	
<b>IF additional location:</b>	
<b>IF approved for publication on HPA:</b>	No
<b>IF in THP-1:</b>	Negative
<b>IF in U2OS:</b>	Negative

# Western blot



<b>WB Size markers (kDa):</b>	250, 130, 100, 70, 55, 35, 25, 15, 10
<b>WB Lanes:</b>	Marker (1), RT-4 (2), U-251MG (3), Plasma (4), Liver (5), Tonsil (6)
<b>WB Target weight (kDa):</b>	10, 84
<b>WB Validation:</b>	Supported (Band of predicted size in kDa (+/-20%) with additional bands present.)