

CPTC-MPO-2 (CAB080353)

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).

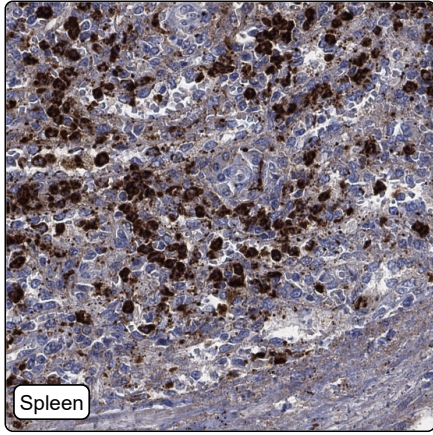
Subcellular location:

Lysosome

Protein existence: Experimental evidence at protein level

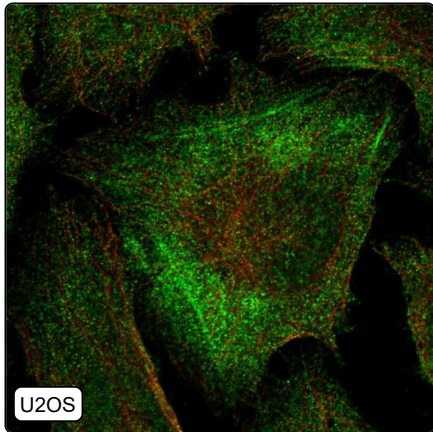
Comment:

Immunohistochemistry



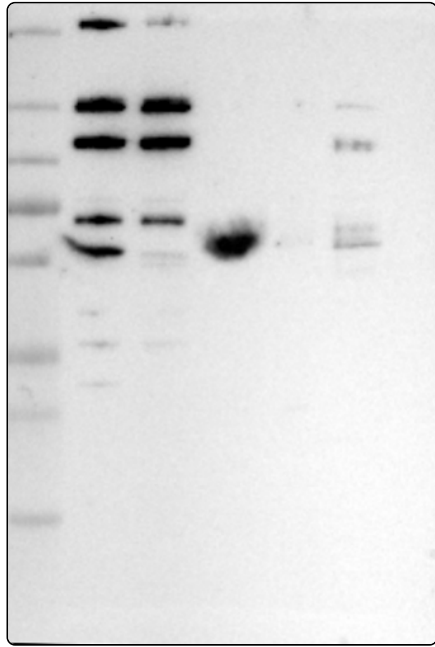
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|---------------------------------|---|
| IHC protocol: | HIER pH6, Dilution 1:70000 |
| IHC test staining: | Cytoplasmic positivity in immune cells. |
| Literature conformance: | Partly consistent with extensive gene/protein characterization data |
| Literature significance: | |
| RNA similarity: | High consistency between antibody staining and RNA expression data |
| RNA tissue specificity: | Tissue enriched (bone marrow) |
| RNA tissue distribution: | Detected in many |
| IHC Sibling similarity: | Other antibody shows similar IHC staining pattern |

Immunofluorescence



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|--|--|
| IF Overlay: | antibody (green), anti-tubulin (red) and DAPI (blue) |
| IF main location: | Plasma membrane - 12: Uncertain (auto) Nucleoplasm - 12: Uncertain (auto) |
| IF additional location: | Actin filaments - 12: Uncertain (auto) |
| IF approved for publication on HPA: | No |
| IF in THP-1: | Nucleoplasm Plasma membrane |
| IF in U2OS: | Nucleoplasm Plasma membrane Csk(actin) |

Western blot



| | |
|--------------------------------|--|
| WB Size markers (kDa): | 250, 130, 100, 70, 55, 35, 25, 15, 10 |
| WB Lanes: | Marker (1), RT-4 (2), U-251MG (3), Plasma (4), Liver (5), Tonsil (6) |
| WB Target weight (kDa): | 10, 84 |
| WB Validation: | Uncertain (Only bands not corresponding to the predicted size.) |