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# PON1 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1873a

## Product Information

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| **Application** | WB, IHC, FC, E |
| **Primary Accession** | P27169 |
| **Reactivity** | Human |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Clone Names** | 4G8A12 |
| **Isotype** | IgG1 |
| **Calculated MW** | 39731 |
| **Description** | The enzyme encoded by this gene is an arylesterase that mainly hydrolyzes paroxon to produce p-nitrophenol. Paroxon is an organophosphorus anticholinesterase compound that is produced in vivo by oxidation of the insecticide parathion. Polymorphisms in this gene are a risk factor in coronary artery disease. The gene is found in a cluster of three related paraoxonase genes at 7q21.3. |
| **Immunogen** | Purified recombinant fragment of human PON1 (AA: 20-155) expressed in E. Coli. |
| **Formulation** | Ascitic fluid containing 0.03% sodium azide. |

## Additional Information

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| **Gene ID** | 5444 |
| **Other Names** | Serum paraoxonase/arylesterase 1, PON 1, 3.1.1.2, 3.1.1.81, 3.1.8.1, Aromatic esterase 1, A-esterase 1, K-45, Serum aryldialkylphosphatase 1, PON1, PON |
| **Dilution** | WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 E~~1/10000 |
| **Storage** | Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | PON1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | PON1 |
| **Synonyms** | PON |

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| **Function** | Hydrolyzes the toxic metabolites of a variety of organophosphorus insecticides. Capable of hydrolyzing a broad spectrum of organophosphate substrates and lactones, and a number of aromatic carboxylic acid esters. Mediates an enzymatic protection of low density lipoproteins against oxidative modification and the consequent series of events leading to atheroma formation. |
| **Cellular Location** | Secreted, extracellular space. |
| **Tissue Location** | Plasma, associated with HDL (at protein level). Expressed in liver, but not in heart, brain, placenta, lung, skeletal muscle, kidney or pancreas. |

## Background

The enzyme encoded by this gene is an arylesterase that mainly hydrolyzes paroxon to produce p-nitrophenol. Paroxon is an organophosphorus anticholinesterase compound that is produced in vivo by oxidation of the insecticide parathion. Polymorphisms in this gene are a risk factor in coronary artery disease. The gene is found in a cluster of three related paraoxonase genes at 7q21.3. ;

## References

1. Redox Rep. 2012;17(5):214-8. 2. Cancer Epidemiol. 2012 Apr;36(2):e101-3.

## Images

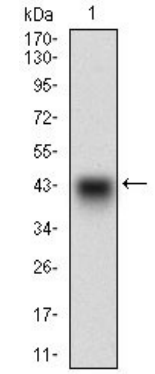



Figure 1: Western blot analysis using PON1 mAb against human PON1 recombinant protein. (Expected MW is 40.6 kDa)

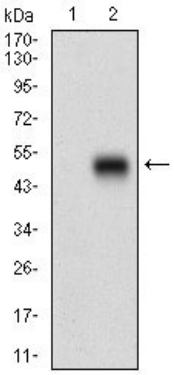
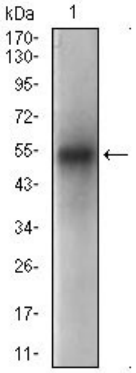



Figure 2: Western blot analysis using PON1 mAb against HEK293 (1) and PON1 (AA: 20-155)-hIgGFc transfected HEK293 (2) cell lysate.

Figure 3: Western blot analysis using PON1 mouse mAb against human plasma cell lysate.



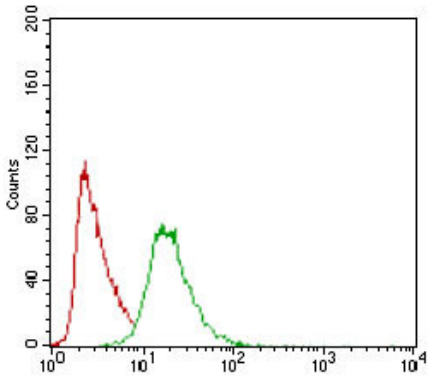




Figure 4: Flow cytometric analysis of Hela cells using PON1 mouse mAb (green) and negative control (red).

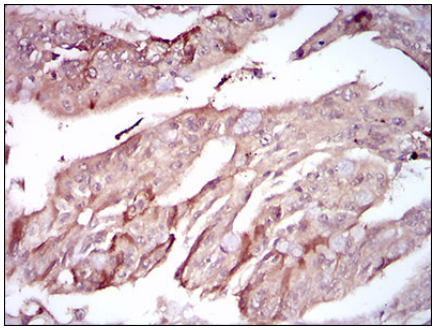


Figure 5: Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using PON1 mouse mAb with DAB staining.

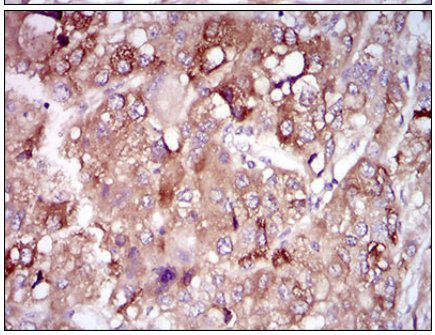


Figure 6: Immunohistochemical analysis of paraffin-embedded liver cancer tissues using PON1 mouse mAb with DAB staining.