10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PON1 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1874a

Specification

PON1 Antibody - Product Information

Application	**E, WB, IF, IHC**
Primary Accession	P27169
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**39.7kDa KDa**

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
Purified antibody in PBS with 0.05% sodium azide

PON1 Antibody - Additional Information

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
E~~1/10000
WB~~1/500 - 1/2000
IF~~1/200 - 1/1000
IHC~~1/200 - 1/1000

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.

PON1 Antibody - Protein Information

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Name PON1

Synonyms PON

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.

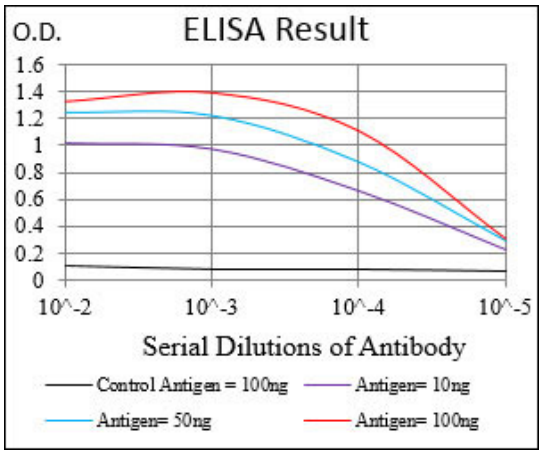
Cellular Location
Secreted, extracellular space.

Tissue Location
Plasma, associated with HDL (at protein level). Expressed in liver, but not in heart, brain, placenta, lung, skeletal muscle, kidney or pancreas.

PON1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture



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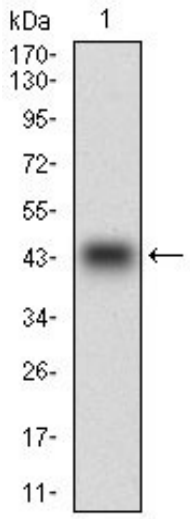

Figure 1: Western blot analysis using PON1 mAb against human PON1 recombinant protein. (Expected MW is 40.6 kDa)

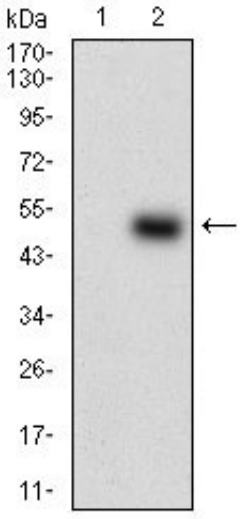

Figure 2: Western blot analysis using PON1 mAb against HEK293 (1) and PON1 (AA: 20-155)-hIgGFc transfected HEK293 (2) cell lysate.

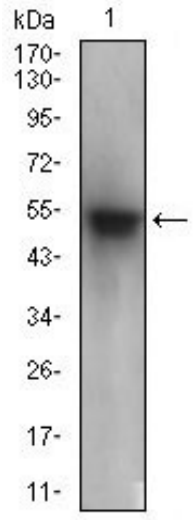

Figure 3: Western blot analysis using PON1 mouse mAb against human plasma cell lysate.

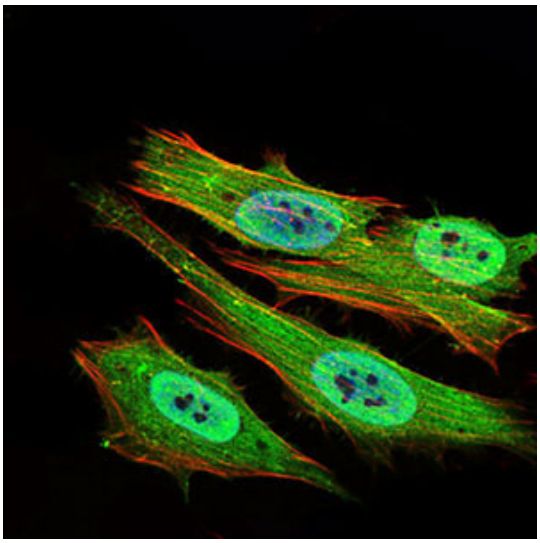

Figure 4: Immunofluorescence analysis of Hela cells using PON1 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin. Secondary antibody from Fisher (Cat#: 35503)

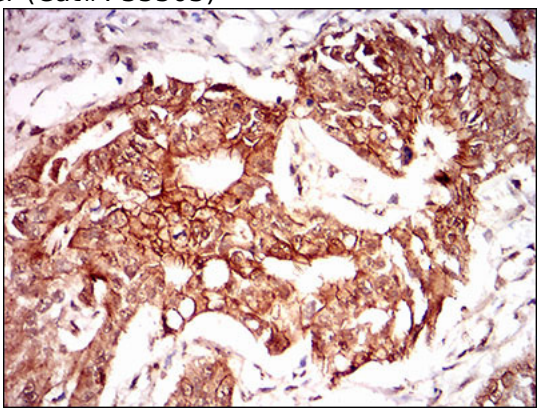

Figure 5: Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using PON1 mouse mAb with DAB staining.

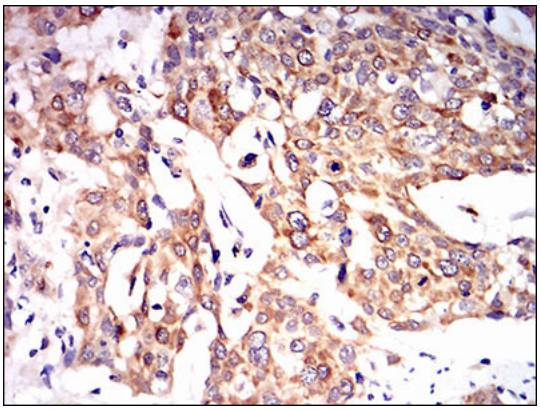

Figure 6: Immunohistochemical analysis of paraffin-embedded esophageal cancer tissues using PON1 mouse mAb with DAB staining.

PON1 Antibody - Background

This gene encodes a member of the SOX (SRY-related HMG-box) family of transcription factors involved in the regulation of embryonic development and in the determination of the cell fate. The encoded protein may act as a transcriptional activator after forming a protein complex with other proteins. This protein acts as a nucleocytoplasmic shuttle protein and is important for neural crest

and peripheral nervous system development. Mutations in this gene are associated with Waardenburg-Shah and Waardenburg-Hirschsprung disease. ;

PON1 Antibody - References

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