

Product name:	PON1 Rabbit Polyclonal Antibody
Cat number:	ABN16371
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from the Internal region of human PON1. AA range:51-100
Reactivity:	Human,Rat,Mouse
Applications:	IHC 1:50-1:200,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

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. [provided by RefSeq, Oct 2008],catalytic activity:A phenyl acetate + H(2)O = a phenol + acetate.,catalytic activity:An aryl dialkyl phosphate + H(2)O = dialkyl phosphate + an aryl alcohol.,disease:Genetic variation in PON1 is associated with susceptibility to diabetic retinopathy [MIM:612633]; also called microvascular complications of diabetes type 5 (MVCD5). Diabetic retinopathy is a major cause of blindness in diabetic patients. Retinal disease results from adverse effects on the blood vessels which supply the retina.,function:Hydrolyzes the toxic metabolites of a variety of organophosphorus insecticides. Capable of hydrolyzing a broad spectrum of organophosphate substrates and a number of aromatic carboxylic acid esters. May mediate an enzymatic protection of low density lipoproteins against oxidative modification and the consequent series of events leading to atheroma formation.,miscellaneous:The preferential association of PON1 with HDL is mediated in part by its signal peptide, by binding phospholipids directly, rather than binding apo AI. The retained signal peptide may allow transfer of the protein between phospholipid surfaces.,online information:The Singapore human mutation and polymorphism database,polymorphism:The allelic form of the enzyme with Gln-192 (allozyme A) hydrolyzes paraoxon with a low turnover number and the one with Arg-192 (allozyme B) with a high turnover number.,PTM:Glycosylated.,PTM:Present in two forms, form B contains a disulfide bond, form A does not.,PTM:The signal sequence is not cleaved.,similarity:Belongs to the paraoxonase family.,subunit:Heterooligomer with phosphate-binding protein (HPBP). Interacts with CLU.,tissue specificity:Plasma, associated with HDL (at protein level). Expressed in liver, but not in heart, brain, placenta, lung, skeletal muscle, kidney or pancreas.,