Human paraoxonase,PON ELISA Kit

Product Code	CSB-E09484h
Abbreviation	PON1
Target Name	paraoxonase 1
Uniprot No.	P27169
Alias	ESA, MVCD5, PON, arylesterase B-type|esterase A|paraoxonase B-type|serum aryldiakylphosphatase
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Sample Types	serum, plasma, cell culture supernates, tissue homogenates
Detection Range	31.25 mIU/mL-2000 mIU/mL
Sensitivity	7.81 mIU/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Cardiovascular
Gene Names	PON1
Tag Info	quantitative
Protein Description	Sandwich

Description

This human paraoxonase (PON1) ELISA kit employs the quantitative sandwich enzyme immunoassay technique to measure the levels of human PON1 in different samples, including serum, plasma, cell culture supernates, or tissue homogenates. The enzyme-substrate chromogenic reaction is also used to amplify the signal and quantify the levels of the analyte through the intensity of the colored product. The color intensity positively correlates with the amount of PON1 bound in the initial step.

PON1 is a phase-I enzyme involved in the hydrolysis of organophosphate esters. As a high-density lipoprotein (HDL)-associated esterase, PON1 can hydrolyze oxidized LDL-cholesterol, with potential atheroprotective effects. IT also mediates protection against lipid oxidation. PON1 not only has a weak paraoxonase activity but also exhibits anti-oxidant and anti-inflammatory activities. It is implicated in several human diseases, including diabetes mellitus and atherosclerosis. Low PON1 activity has been related to the elevated risk of major cardiovascular events.

Target Details

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.

Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of human PON in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

?	Sample	Serum(n=4)
1:100	Average %	88
	Range %	80-92
1:200	Average %	98
	Range %	91-105
1:400	Average %	103
	Range %	92-110
1:800	Average %	93
	Range %	86-98

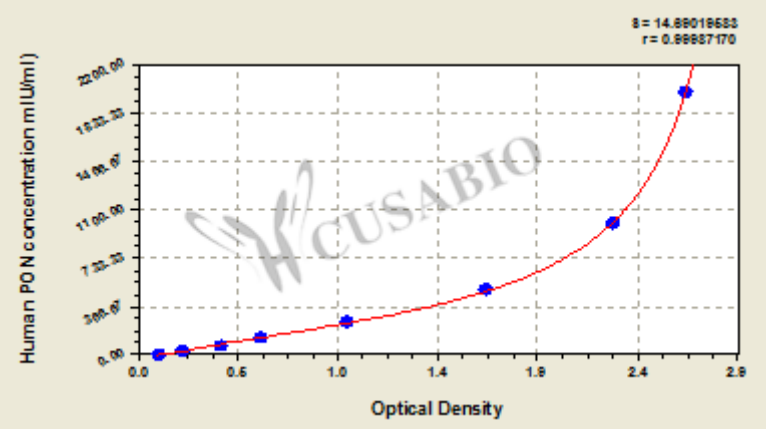
Recovery

The recovery of human PON spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	93	89-98
EDTA plasma (n=4)	95	90-100

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



mIU/ml	OD1	OD2	Average	Corrected
2000	2.655	2.603	2.629	2.521
1000	2.292	2.248	2.283	2.175
500	1.689	1.663	1.676	1.568
250	1.025	0.989	1.007	0.899
125	0.597	0.603	0.600	0.492
62.5	0.409	0.398	0.404	0.296
31.25	0.218	0.229	0.224	0.116
0	0.109	0.107	0.108	?

Msds

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