Datasheet for ABIN1889337

PON1 ELISA Kit

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Overview

Quantity:	96 tests
Target:	PON1
Binding Specificity:	AA 2-355
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	31.2-2000 pg/mL
Minimum Detection Limit:	31.2 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human PON1
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Cell Lysate, Serum, Plasma (heparin), Tissue Homogenate
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: A2-L355
Specificity:	Expression system for standard: NSO Immunogen sequence: A2-L355
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

Target:	PON1
Alternative Name:	PON1 (PON1 Products)
Background:	Protein 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. . Background: Serum paraoxonase/arylesterase 1(PON1) also known as aromatic esterase 1 or serum aryldialkylphosphatase 1 is an enzyme that in humans is encoded by the PON1 gene. The PON gene was mapped to chromosome 7q21-q22, and the mouse Pon1 gene was mapped to the proximal end of chromosome 6. PON1 is responsible for hydrolysing organophosphate pesticides and nerve gasses. Polymorphisms in the PON1 gene significantly affect the catalytic ability of the enzyme. PON1(paraoxonase 1) is also a major anti-atherosclerotic component of high-density lipoprotein(HDL). Synonyms: 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, Full Gene Name: Serum paraoxonase/arylesterase 1 Cellular Localisation: Secreted, extracellular space.
Gene ID:	5444
UniProt:	P27169

Application Details

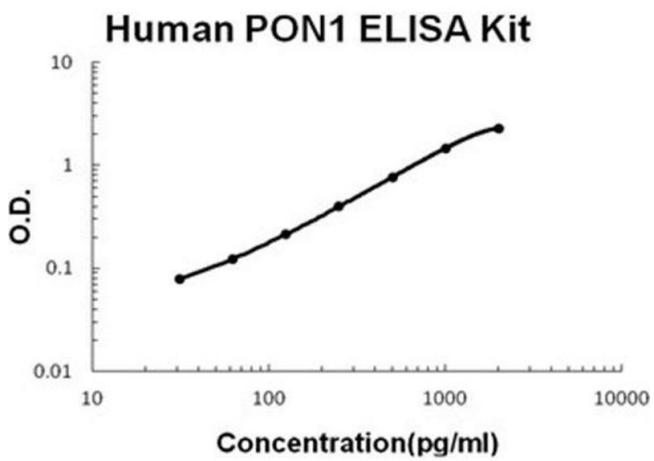
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	Sequence similarities: Belongs to the paraoxonase family. Tissue Specificity: Plasma, associated with HDL (at protein level). Expressed in liver, but not in

Application Details

	heart, brain, placenta, lung, skeletal muscle, kidney or pancreas. .
Plate:	Pre-coated
Protocol:	human PON1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for PON1 has been precoated onto 96-well plates. Standards(NSO, A2-L355) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for PON1 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human PON1 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 2000pg/mL,1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL human PON1 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, cell lysates, serum, plasma(heparin) or tissue homogenates to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human PON1 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 289, Standard deviation: 18.8, CV(%): 6.5 • Sample 2: n=16, Mean(pg/ml): 612, Standard deviation: 31.2, CV(%): 5.1 • Sample 3: n=16, Mean(pg/ml): 935, Standard deviation: 50.49, CV(%): 5.4, • Sample 1: n=24, Mean(pg/ml): 260, Standard deviation: 19.24, CV(%): 7.4 • Sample 2: n=24, Mean(pg/ml): 712, Standard deviation: 46.28, CV(%): 6.5 • Sample 3: n=24, Mean(pg/ml): 1284, Standard deviation: 86.03, CV(%): 6.7
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months



ELISA

Image 1. Human PON1 PicoKine ELISA Kit standard curve