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## Recombinant human PON1 protein

Catalog Number: ATGP3936

## **PRODUCT INFORMATION**

## **Expression system**

**HEK293** 

#### **Domain**

16-355aa

#### UniProt No.

P27169

#### **NCBI Accession No.**

NP 000437.3

#### **Alternative Names**

Aromatic esterase 1, A-esterase 1, K-45, Serum aryldialkylphosphatase 1, paraoxonase 1, ESA, MVCD5, PON

## **PRODUCT SPECIFICATION**

## **Molecular Weight**

39.0kDa (346aa)

#### Concentration

0.25mg/ml (determined by Absorbance at 280nm)

#### **Formulation**

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 20% glycerol

#### **Purity**

> 90% by SDS-PAGE

#### **Endotoxin level**

< 1 EU per 1ug of protein (determined by LAL method)

### **Biological Activity**

Specific activity is > 2,500 pmol/min/ug, and is defined as the amount of enzyme that hydrolyze 1pmole of p-nitrophenyl acetate to p-nitrophenol per minute at pH7.5 at 37C.

## Tag

His-Tag

## **Application**

SDS-PAGE, Enzyme Activity

### **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## **BACKGROUND**



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## **Description**

PON1, also known as A esterase1, is a member of the paraoxonase family. It is an enzyme that hydrolyzes the toxic metabolites of a variety of organophosphorus insecticides. It is also a major anti-atherosclerotic component of high-density lipoprotein (HDL). This protein is activated by PPAR-gamma, which increases synthesis and release of paraoxonase 1 enzyme from the liver, reducing atherosclerosis. PON1 shows a variety of atheroprotective properties by metabolizing inflammatory lipid peroxides. It has evolved to be a highly promiscuous enzyme capable of hydrolysing a wide variety of substrates such as lactones, cyclic carbonates, organophosphorus pesticides and nerve gases. Recombinant human PON1, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

#### **Amino acid Sequence**

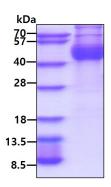
LFRNHQSSYQ TRLNALREVQ PVELPNCNLV KGIETGSEDL EILPNGLAFI SSGLKYPGIK SFNPNSPGKI LLMDLNEEDP TVLELGITGS KFDVSSFNPH GISTFTDEDN AMYLLVVNHP DAKSTVELFK FQEEEKSLLH LKTIRHKLLP NLNDIVAVGP EHFYGTNDHY FLDPYLQSWE MYLGLAWSYV VYYSPSEVRV VAEGFDFANG INISPDGKYV YIAELLAHKI HVYEKHANWT LTPLKSLDFN TLVDNISVDP ETGDLWVGCH PNGMKIFFYD SENPPASEVL RIQNILTEEP KVTQVYAENG TVLQGSTVAS VYKGKLLIGT VFHKALYCEL < HHHHHH+>

#### **General References**

Banhela N., et al. (2020) Syst Rev. 9:109. Soliman AM., et al. (2020) Eur J Med Chem. 197:112333.

### **DATA**

#### **SDS-PAGE**



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

