APD177Hu01 100μg
Active Paraoxonase 2 (PoN2)
Organism Species: Homo sapiens (Human)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Met1~Leu354
Tags: N-terminal His-tag
Purity: >98%
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 5.3
Predicted Molecular Mass: 43.1kDa
Accurate Molecular Mass: 43kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8°C for one month.
Aliquot and store at -80°C for 12 months.

Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37ºC for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

MGRLVAVGLL GIALALLGER LLALRNRLKA SREVESVDLP HCHLIKGIEA GSEDIDILPN GLAFFSVGLK FPGLHSFAPD KPGGILMMDL KEEKPRAREL RISRGFDLAS FNPHGISTFI DNDDTVYLFV VNHPEFKNTV EIFKFEEAEN SLLHLKTVKH ELLPSVNDIT AVGPAHFYAT NDHYFSDPFL KYLETYLNLH WANVVYYSPN EVKVVAEGFD SANGINISPD DKYIYVADIL AHEIHVLEKH TNMNLTQLKV LELDTLVDNL SIDPSSGDIW VGCHPNGQKL FVYDPNNPPS SEVLRIQNIL CEKPTVTTVY ANNGSVLQGS SVASVYDGKL LIGTLYHRAL YCEL

[ACTIVITY]

Paraoxonase 2 which is a member of the paraoxonase family also known as arylesterase 2. PON2 is exclusively intracellularly found, wherein it functions as an anti-oxidative protein by reducing intracellular and local oxidative stress. This protein is ubiquitously expressed in human tissues, membrane-bound, and may act as a cellular antioxidant, protecting cells from oxidative stress. Besides, ATPase, H+ Transporting, Lysosomal Accessory Protein 2 (ATP6AP2) has been identified as an interactor of PON2, thus a binding ELISA assay was conducted to detect the interaction of recombinant human PON2 and recombinant human ATP6AP2. Briefly, PON2 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to ATP6AP2-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-PON2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at

37℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of PON2 and ATP6AP2 was shown in Figure 1, and this effect was in a dose dependent manner.

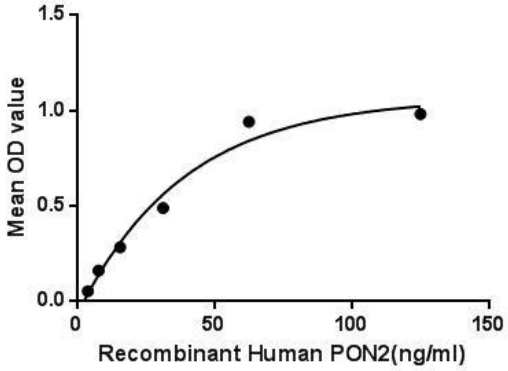

Figure 1. The binding activity of PON2 with ATP6AP2.

[IDENTIFICATION]

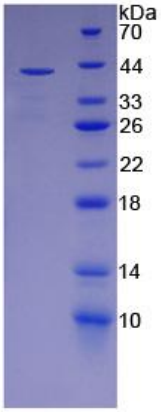

Figure 2. SDS-PAGE

Sample: Active recombinant PoN2, Human

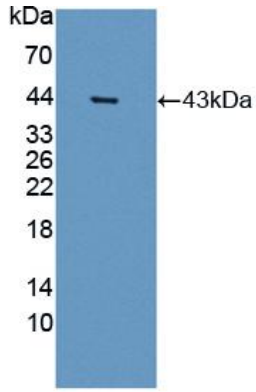

Figure 3. Western Blot

Sample: Recombinant PoN2, Human;

Antibody: Rabbit Anti-Human PoN2 Ab (PAD177Hu01)