APA867Hu01 10μg
Active Phospholipase A2, Lipoprotein Associated (LpPLA2)
Organism Species: *Homo sapiens* (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Phe22~Asn441
Tags: N-terminal His-tag
Purity: >95%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5% Trehalose.
Original Concentration: 100μg/mL
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 7.1
Predicted Molecular Mass: 49.0kDa
Accurate Molecular Mass: 50kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in ddH_2O to a concentration of 0.1-0.5 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8^oC for one month.
Aliquot and store at -80^oC 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 37°C 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]

FDWQYINPV AHMKSSAWVN KIQVLMAAAS
FGQTKIPRGN GPYSVGCTDL MFDHTNKGTF LRLYYPSQDN DRLDTLWIPN
KEYFWGLSKF LGTHWLMGNI LRLLFGSMTT PANWNSPLRP GEKYPLVVFS
HGLGAFRTLY SAIGIDLASH GFIVAAVEHR DRSASATYYF KDQSAAEIGD
KSWLYLRTLK QEEETHIRNE QVRQRAKECS QALSLILDID HGKPVKNALD
LKFDMEQLKD SIDREKIAVI GHSFGGATVI QTLSEDQRFR CGIALDAWMF
PLGDEVYSRI PQPLFFINSE YFQYPANIIK MKKCYSPDKE RKMITIRGSV
HQNFADFTFA TGKIIGHMLK LKGDIDSNVA IDLSNKASLA FLQKHLGLHK
DFDQWDCLIE GDDENLIPGT NINTTNQHIM LQNSSGIEKY N

[ACTIVITY]

Phospholipase A2 Group VII (PLA2G7) which is also known as Lp-PLA2, is a plasma enzyme bound to lipoproteins: 80% bound to LDL, 15%-20% to HDL, and the remainder to VLDL. It is produced in major by mature macrophages and activated platelets and catalyzes the degradation of platelet-activating factor to biologically inactive products. Besides, Paraoxonase 1 (PON1) has been identified as an interactor of PLA2G7, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human PLA2G7 and recombinant rat PON1. Briefly, PLA2G7 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to PON1-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-PLA2G7 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 5 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 450/630 nm immediately.

The binding activity of recombinant human PLA2G7 and recombinant rat PON1 was shown in Figure 1, the EC50 for this effect is 0.7 ug/mL.

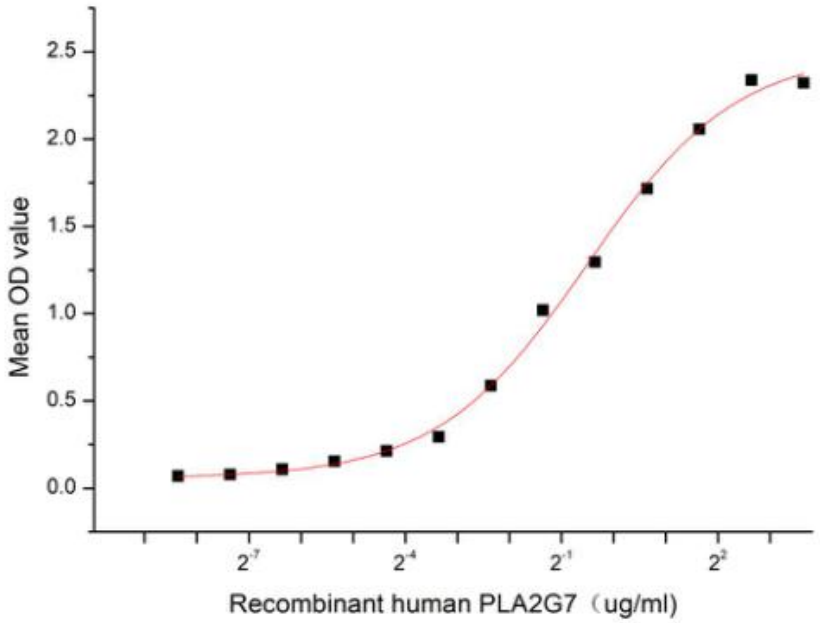

Figure 1. The binding activity of recombinant human PLA2G7 and recombinant rat PON1

[IDENTIFICATION]

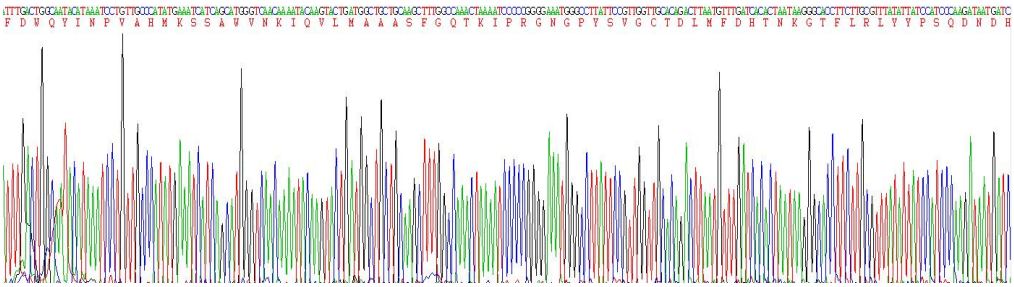

Figure 2. Gene Sequencing (extract)

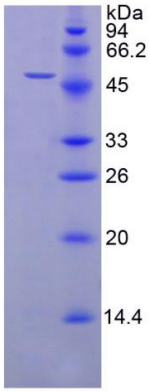

Figure 3. SDS-PAGE

Sample: Active recombinant LpPLA2, Human

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.