

APD088Hu01 100µg

Active Acid Phosphatase 6, Lysophosphatidic (ACP6)

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: Met1~Glu428

Tags: N-terminal His-tag

Purity: >90%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5%Trehalose .

Original Concentration: 200µg/mL

Applications: Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 6.0

Predicted Molecular Mass: 52.6kDa

Accurate Molecular Mass: 53kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) 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 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**]

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MITGVFSMRL WTPVGVLTSL AYCLHQRRVA LAELQEADGQ CPVDRSLLKL KMQVQVFRHG ARSPLKPLPL
EEQVEWNPQL LEVPPQTQFD YTVTNLAGGP KPYSFYDSQY HETTLKGGMF AGQLTKVGMQ QMFALGERLR
KNYVEDIPFL SPTFNPQEVF IRSTNIFRNL ESTRCLLAGL FQCQKEGPII IHTDEADSEV LYPNYQSCWS
LRQTRGRRQ TASLQPGISE DLKKVKDRMG IDSSDKVDFE ILLDNVAABQ AHNLPSCPML KRFARMIEQR
AVDTSYLILP KEDRESLQMA VGPFLHILES NLLKAVDSAT APDKIRKLYL YAAHDVTFIP LLMTLGIFDH
KWPPFAVDLT MELYQHLESK EWFVQLYYHG KEQVPRGCPD GLCPLDMFLN AMSVYTLSPE KYHALCSQTQ
VMEVGNEE
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[**ACTIVITY**]

Lysophosphatidic acid phosphatase type 6 (ACP6), is a 44-47 kDa monomeric member of the histidine acid phosphatase family of proteins. ACP6 is highly expressed in kidney, heart, small intestine, muscle, liver, prostate, testis, ovary and exists as two isoforms as a result of alternative splicing events. It plays a role in regulating lipid metabolism that hydrolyzes LPA to monoacylglycerol (MAG) and phosphate. Annexin V (ANXA5) binds to phospholipid bilayers, forming two-dimensional crystals that block the phospholipids from availability for coagulation enzyme reactions. A functional binding ELISA assay was conducted to detect the interaction of recombinant human ACP6 and recombinant mouse ANXA5. Briefly, ACP6 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to ANXA5-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-ACP6 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37°C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 μ l stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant human ACP6 and

recombinant mouse ANXA5 was shown in Figure 1, the EC50 for this effect is 0.08 ug/mL.

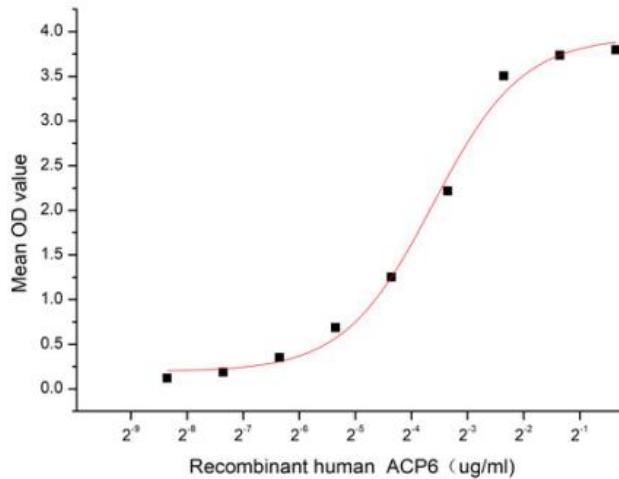


Figure 1. The binding activity of recombinant human ACP6 and recombinant mouse ANXA5

[IDENTIFICATION]

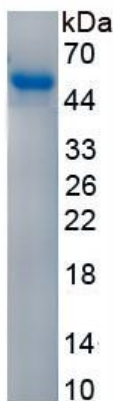


Figure 2. SDS-PAGE

Sample: Active recombinant ACP6, 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.