

**APC048Hu01 100µg**  
**Active Phospholipase B (PLB)**  
**Organism Species: *Homo sapiens* (Human)**  
***Instruction manual***

FOR RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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13th Edition (Revised in Aug, 2023)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Met1036~Leu1458

**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% Sarcosyl, 5%Trehalose .

**Original Concentration:** 200µg/mL

**Applications:** Activity Assays.

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

**Predicted isoelectric point:** 5.9

**Predicted Molecular Mass:** 51.0kDa

**Accurate Molecular Mass:** 51kDa 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.

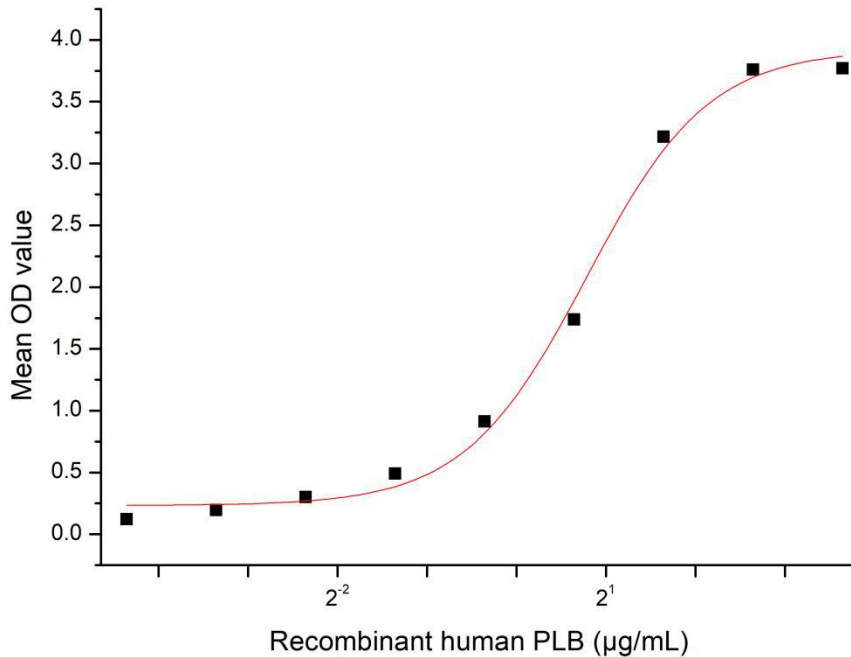
## [ **SEQUENCE** ]

```
MPITC PTQNEPFLRT
PRNSNYTYPI KPAIENWGSD FLCTEWKASN SVPTSVHQLR PADIKVVAAL
GDSLTTAVGA RPNNSSDLPT SWRGLSWSIG GDGNLEHTTT LPNILKKFNP
YLLGFSTSTW EGTAGLNVAE EGARARDMPA QAWDLVERMK NSPDINLEKD
WKLVTFLFIGV NDLCHYCENP EAHLATEYVQ HIQQALDILS EELPRAFVNV
VEVMELASLY QGQGGKCAML AAQNNCTCLR HSQSSLEKQE LKKVNWNLQH
GISSFSYWHQ YTQREDFAVV VQPFFQNTLT PLNERGDTDL TFFSEDCFHF
SDRGHAEMAI ALWNNMLEPV GRKTTSNFT HSRAKLKCPs PESPLYTLR
NSRLLPDQAE EAPEVLYWAV PVAAGVGLVV GIIGTVVWRC RRGRRREDPP
MSLRTVAL
```

## [ **ACTIVITY** ]

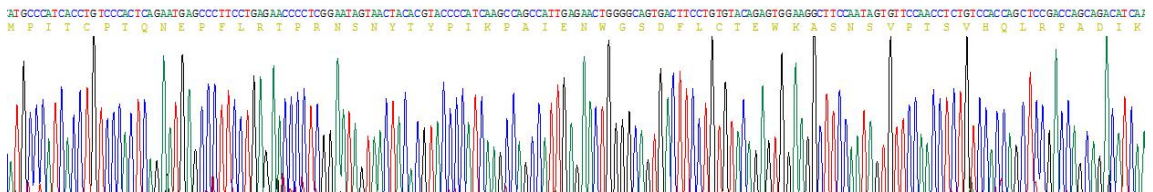
Phospholipase B (PLB) is a multifunctional enzyme that exhibits both phospholipase A1/A2 and lysophospholipase activities, enabling it to hydrolyze phospholipids at both the sn-1 and sn-2 positions. Primarily found in fungi, bacteria, and mammalian tissues, PLB plays critical roles in lipid metabolism, membrane remodeling, and signal transduction. In pathogenic fungi like *Candida albicans*, PLB contributes to virulence by facilitating host cell invasion and immune evasion. Besides, Phospholipase C Beta 2 (PLCb2) has been identified as an interactor of PLB, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human PLB and recombinant human PLCb2. Briefly, PLB was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100  $\mu$ l were then transferred to PLCb2-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-PLB 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 µL stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant human PLB and recombinant human PLCb2 was shown in Figure 1, the EC50 for this effect is 1.72µg/mL.

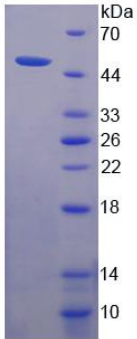


**Figure 1. The binding activity of recombinant human PLB and recombinant human PLCb2**

**[ IDENTIFICATION ]**



**Figure 2. Gene Sequencing (extract)**



**Figure 3. SDS-PAGE**

**Sample: Active recombinant PLB, 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.