**APB236Hu51 100μg**
**Active Plasminogen (Plg)**
**Organism Species: *Homo sapiens* (Human)**
***Instruction manual***

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

# [ PROPERTIES ]

**Source:** Eukaryotic expression.
**Host:** Yeast
**Residues:** Leu100~Cys352
**Tags:** N-terminal His-tag
**Purity:** >95%
**Endotoxin Level:** <1.0EU per 1μg (determined by the LAL method).
**Buffer Formulation:** 10mM PBS, pH7.6, containing 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:** 8.0
**Predicted Molecular Mass:** 30.4kDa
**Accurate Molecular Mass:** 35kDa as determined by SDS-PAGE reducing conditions.
**Phenomenon explanation:**
The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

## [ USAGE ]

Reconstitute in 10mM PBS (pH7.6) 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 ]

L
SECKTGNGKN YRGTMSKTKN GITCQKWSST SPHRPRFSPA THPSEGLEEN
YCRNPDNDPQ GPWCYTTDPE KRYDYCDILE CEEECMHCSG ENYDGKISKT
MSGLECQAWD SQSPHAHGYI PSKFPNKNLK KNYCRNPDRE LRPWCFTTDP
NKRWELCDIP RCTTPPPSSG PTYQCLKGTG ENYRGNVAVT VSGHTCQHWS
AQTPHTHNRT PENFPCKNLD ENYCRNPDGK RAPWCHTTNS QVRWEYCKIP
SC

## [ ACTIVITY ]

Plasminogen (PLG) as a zymogen releases plasmin from the liver into the systemic circulation. Plasmin is a serine protease that acts to dissolve fibrin blood clots. Apart from fibrinolysis, plasmin proteolyses proteins in various other systems: It activates collagenases, some mediators of the complement system and weakens the wall of the Graafian follicle (leading to ovulation). It cleaves fibrin, fibronectin, thrombospondin, laminin, and von Willebrand factor. Plasmin, like trypsin, belongs to the family of serine proteases. Besides, Insulin Like Growth

Factor Binding Protein 3 (IGFBP3) has been identified as an interactor of PLG, thus a binding ELISA assay was conducted to detect the interaction of recombinant human PLG and recombinant human IGFBP3. Briefly, PLG were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to IGFBP3-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-PLG 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 PLG and IGFBP3 was shown in Figure 1, and this effect was in a dose dependent manner.

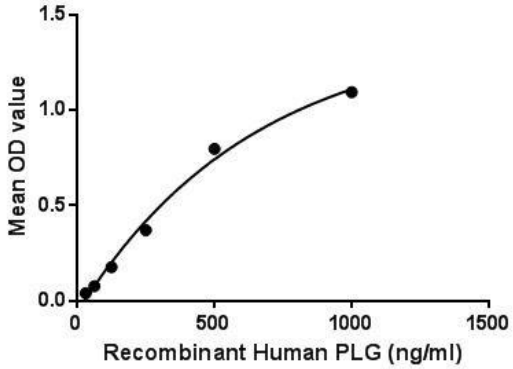


**Figure 1. The binding activity of PLG with IGFBP3.**

## [ IDENTIFICATION ]

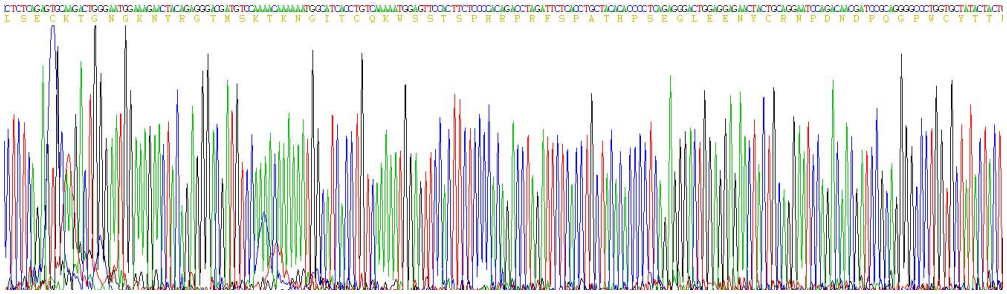

**Figure 2. Gene Sequencing (extract)**

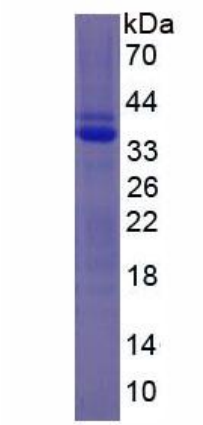


**Figure 3. SDS-PAGE**

**Sample: Active recombinant Plg, Human**

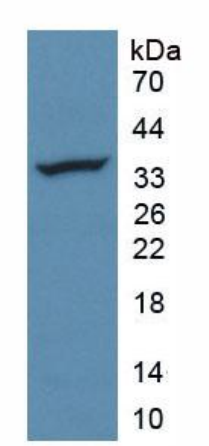


**Figure 4. Western Blot**

**Sample: Recombinant Plg, Human;**

**Antibody: Rabbit Anti-Human Plg Ab (PAB236Hu06)**

## [ IMPORTANT NOTE ]

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