Active Pregnancy Associated Plasma Protein A (PAPPA) Instruction Manual

SBPA182Hu04

Homo sapiens (Human)

Buffer Formulation	PBS, pH7.4, containing 0.01% SKL, 5% Trehalose.
Traits	Freeze-dried powder
Purity	> 95%
Isoelectric Point	5.3
Applications	Cell culture; Activity Assays.

ACTIVITY TEST

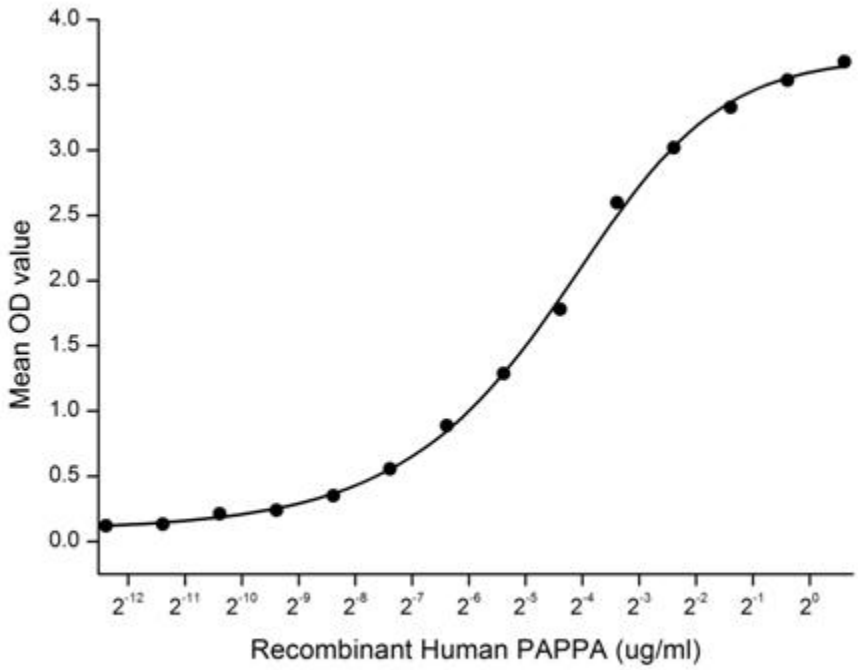

Figure 1. The binding activity of PAPPA with Plg

Pregnancy-associated plasma protein A(PAPPA), also known as pappalysin-1, is a secreted protease whose main substrate is insulin-like growth factor binding proteins.

PAPPA's proteolytic function is activated upon collagen binding. It is thought to be involved in local proliferative processes such as wound healing and bone remodeling. Low plasma level of this protein has been suggested as a biochemical marker for pregnancies with aneuploid fetuses (fetuses with an abnormal number of chromosomes). Besides, Plasminogen (Plg) has been identified as an interactor of PAPPA, thus a binding ELISA assay was conducted to detect the interaction of recombinant human PAPPA and recombinant human Plg. Briefly, biotinylated PAPPA were diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100µl were then transferred to Plg-coated microtiter wells and incubated for 1 h at 37℃. Wells were washed 3 times with PBST and incubated for 0.5 h at 37℃ with SA labelled HRP. After incubation with SA labelled HRP, 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 PAPPA and Plg was shown in Figure 1, and the ED50 for this effect is 0.04936 ug/ml.

USAGE

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

STORAGE

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

STABILITY

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.

Image

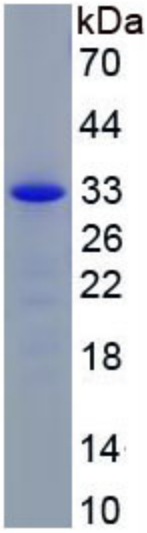

Figure. SDS-PAGE

[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.