

Pregnancy Associated Plasma Protein A (PAPPA) Active Protein | PAPPA active protein

Active Pregnancy Associated Plasma Protein A (PAPPA)

CATALOG #
AAA149241

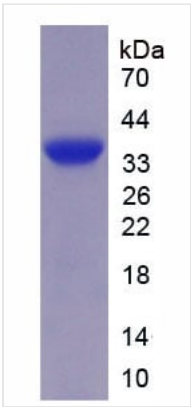
APPLICATIONS
Activity Assay, Cell Culture

PRODUCT SYNONYMS

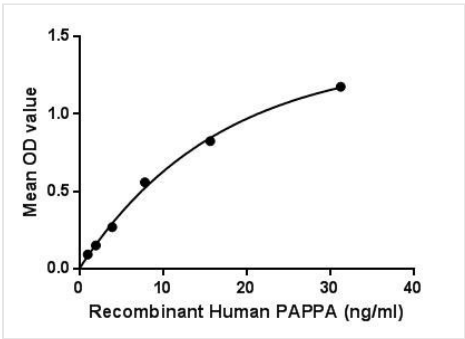
Pregnancy Associated Plasma Protein A (PAPPA); Active Pregnancy Associated Plasma Protein A (PAPPA); PAPP-A; PAPA; ASBABP2; DIPLA1; IGFBP-4ase; PAPPA1; Pappalysin 1; Insulin-Like Growth Factor Binding Protein-4 Protease; Differentially Placenta 1 Expressed Protein; PAPPA active protein

PRODUCT SPECIFICATIONS

Purity/Purification	> 97%
Form/Format	Freeze-Dried Powder; 20mM Tris, 150mM NaCl, pH8.0, Containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Sequence Positions	Ala244~Leu501
Sequence Length	1627
Applicable Applications for PAPPA active protein	Activity Assay, Cell Culture
Species	Human
Tag	N-terminal His-Tag
Isoelectric Point	5.7
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles. 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 degree 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.



SDS-PAGE



Activity

Figure. The binding activity of PAPP-A with Plg. Pregnancy-associated plasma protein A (PAPP-A), also known as pappalysin-1, is a secreted protease whose main substrate is insulin-like growth factor binding proteins. PAPP-A'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 PAPP-A, thus a binding ELISA assay was conducted to detect the interaction of recombinant human PAPP-A and recombinant human Plg. Briefly, PAPP-A 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 2h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-PAPP-A 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 degree C. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of PAPP-A and Plg was shown in Figure 1, and this effect was in a dose dependent manner.

ADDITIONAL INFORMATION

Product Categories/Family for PAPP-A active protein	Reproductive science; Genetic science
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NCBI AND UNIPROT INFORMATION

NCBI GI #	223590248
NCBI GeneID	5069
UniProt Accession #	Q13219
Molecular Weight	Predicted MW: 30.9kDa Accurate MW: 37kDa
NCBI Official Full Name	Pappalysin-1
NCBI Official Synonym Full Names	pappalysin 1
NCBI Official Symbol	PAPP-A
NCBI Official Synonym Symbols	PAPA; DIPLA1; PAPP-A; PAPP-A1; ASBAPP2; IGFBP-4ase
NCBI Protein Information	pappalysin-1
UniProt Protein Name	Pappalysin-1
UniProt Gene Name	PAPP-A
UniProt Synonym Gene Names	IGF-dependent IGFBP-4 protease; IGFBP-4ase; PAPP-A
UniProt Entry Name	PAPP1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/active-protein/pregnancy-associated-plasma-protein-a-pappa/149241>