

## Basic Information

Product Name	Anti-PAPPA Antibody	
Gene Name	PAPPA	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC	
Contents	500 ug/ml antibody with PBS , 0.02% NaN <sub>3</sub> , 1 mg BSA and 50% glycerol.	
Immunogen	E.coli-derived human PAPP A recombinant protein (Position: R95-Q388). Human PAPP A shares 88% amino acid (aa) sequence identity with mouse PAPP A.	
concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	181KD	
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

## Background Information

Pappalysin-1, also known as DIPLA1, is a protein that in humans is encoded by the PAPPA gene. It is mapped to 9q33.1. PAPPA is found in the ovarian follicles, follicular fluid, luteal cells, and fallopian tubes of nonpregnant women and in the seminal vesicles and seminal fluid of males. This gene encodes a secreted metalloproteinase which cleaves insulin-like growth factor binding proteins (IGFBPs). 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. It has been found that circulating PAPPA is a disulfide-bridged complex with proMBP in which the subunits of the constituents are present in a 1:1 molar ratio.

## Selected Validation Data

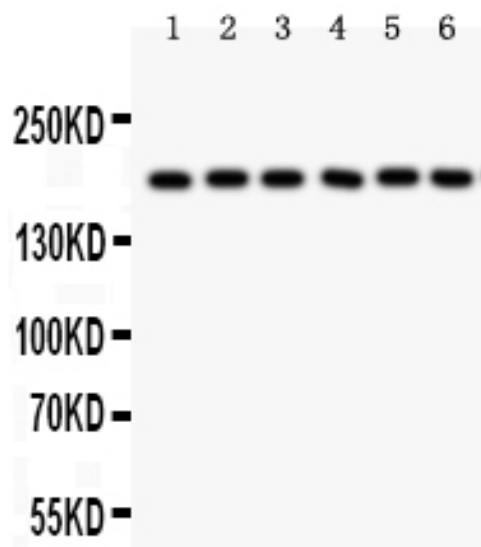


Figure 1. Western blot analysis of PAPP A using anti-PAPP A antibody (PB0340). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: Human Placenta Tissue Lysate, Lane 2: HT1080 Whole Cell Lysate, Lane 3: SKOV Whole Cell Lysate, Lane 4: 22RV1 Whole Cell Lysate, Lane 5: SW620 Whole Cell Lysate, Lane 6: MM231 Whole Cell Lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PAPP A antigen affinity purified polyclonal antibody (Catalog # PB0340) at 0.5  $\mu$ g/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for PAPP A at approximately 181KD. The expected band size for PAPP A is at 181KD.

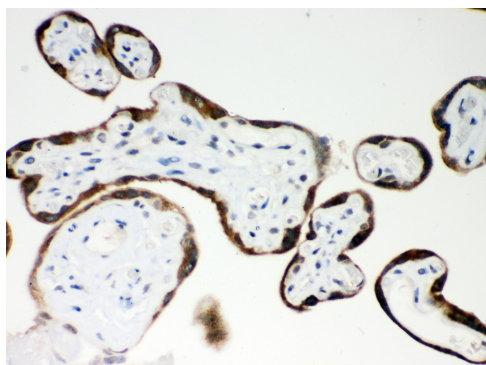


Figure 2. IHC analysis of PAPP A using anti-PAPP A antibody (PB0340). PAPP A was detected in paraffin-embedded section of Human Placenta Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 $\mu$ g/ml rabbit anti-PAPP A Antibody (PB0340) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.