**BACKGROUND**

Pregnancy-associated plasma protein-A (pappalysin-1 or PAPP-A), also known as Insulin-like growth factor-dependent IGF-binding protein 4 (IGFBP4) protease, is a member of the peptidase M43B family of proteins. PAPP-A, a metalloproteinase, cleaves Insulin-like growth factor binding proteins IGFBP4 and IGFBP5, releasing bound IGF. PAPP-A is primarily expressed in septa and anchoring villi in placenta and is also expressed in pregnancy serum. Levels of PAPP-A increase throughout pregnancy. Lower levels of expression can be detected in kidney, prostate, breast, ovary and endometrial tissue. PAPP-A is a secreted protein that can form homodimers; in pregnancy serum PAPP-A may also form a heterotetramer with PRG-2.

**CHROMOSOMAL LOCATION**

Genetic locus: PAPP (human) mapping to 9q33.1; Pappa (mouse) mapping to 4 C1.

**SOURCE**

PAPP-A (B-7) is a mouse monoclonal antibody raised against amino acids 686-840 mapping within an internal region of PAPP-A of human origin.

**PRODUCT**

Each vial contains 200 µg IgG_{κ} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PAPP-A (B-7) is available conjugated to agarose (sc-365226 AC), 500 µg/0.25 ml agarose in 1 ml, for IP, to HRP (sc-365226 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365226 PE), fluorescein (sc-365226 FITC), Alexa Fluor® 488 (sc-365226 AF488), Alexa Fluor® 546 (sc-365226 AF546), Alexa Fluor® 594 (sc-365226 AF594) or Alexa Fluor® 647 (sc-365226 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365226 AF680) or Alexa Fluor® 790 (sc-365226 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**STORAGE**

Store at 4 C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

PAPP-A (B-7) is recommended for detection of PAPP-A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1:2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Molecular Weight of PAPP-A: 181 kDa.

Positive Controls: PAPP-A (m): 293 Lysate: sc-179290.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGx BP-FITC: sc-516140 or m-IgGx BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGx BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

**DATA**

PAPP-A (B-7): sc-365226. Western blot analysis of PAPP-A expression in non-transfected: sc-110760 (A) and mouse PAPP-A transfected: sc-179290 (B) 293 whole cell lysates.

PAPP-A (B-7): sc-365226. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

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