

PAI-2 (E-1): sc-166539

BACKGROUND

PAI-1 and PAI-2 (for plasminogen activator inhibitor-1 and -2) are members of the Serpin serine proteinase inhibitor family. PAI-1 and PAI-2 have been shown to regulate uPA (urokinase-type plasminogen activator) and tPA (tissue plasminogen activator), resulting in the inhibition of proteolytic activity. Members of the Serpin family generally complex with their target proteinases, then disassociate slowly into cleaved species that fold into stable inactive forms. PAI-1 can fold into the inactive state without cleavage, resulting in the latent form of PAI-1. Activity can be restored to the latent form of PAI-1 through denaturation and renaturation. PAI-2 occurs in secreted and cytosolic forms through facultative polypeptide translocation. uPa is a serine proteinase that is a member of the Trypsin family. It is responsible for the cleavage of plasminogen at the Arg-Val bond to produce plasmin. uPA consists of two chains, designated A and B. The A chain can be cleaved, resulting in low and high molecular mass forms of uPA.

REFERENCES

- Riccio, A., et al. 1985. The human urokinase-plasminogen activator gene and its promoter. *Nucleic Acids Res.* 13: 2759-2771.
- Belin, D., et al. 1989. Facultative polypeptide translocation allows a single mRNA to encode the secreted and cytosolic forms of plasminogen activators inhibitor 2. *EMBO J.* 8: 3287-3294.
- Schmitt, M., et al. 1991. Human tumor cell urokinase-type plasminogen activator (uPA): degradation of the proenzyme form (pro-uPA) by granulocyte elastase prevents subsequent activation by plasmin. *Adv. Exp. Med. Biol.* 297: 111-128.

CHROMOSOMAL LOCATION

Genetic locus: SERPINB2 (human) mapping to 18q21.33; Serpinb2 (mouse) mapping to 1 E2.1.

SOURCE

PAI-2 (E-1) is a mouse monoclonal antibody raised against amino acids 61-130 of PAI-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PAI-2 (E-1) is available conjugated to agarose (sc-166539 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166539 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166539 PE), fluorescein (sc-166539 FITC), Alexa Fluor® 488 (sc-166539 AF488), Alexa Fluor® 546 (sc-166539 AF546), Alexa Fluor® 594 (sc-166539 AF594) or Alexa Fluor® 647 (sc-166539 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166539 AF680) or Alexa Fluor® 790 (sc-166539 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

RESEARCH USE

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

APPLICATIONS

PAI-2 (E-1) is recommended for detection of PAI-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PAI-2 siRNA (h): sc-40804, PAI-2 siRNA (m): sc-40805, PAI-2 shRNA Plasmid (h): sc-40804-SH, PAI-2 shRNA Plasmid (m): sc-40805-SH, PAI-2 shRNA (h) Lentiviral Particles: sc-40804-V and PAI-2 shRNA (m) Lentiviral Particles: sc-40805-V.

Molecular Weight of placental PAI-2: 46 kDa.

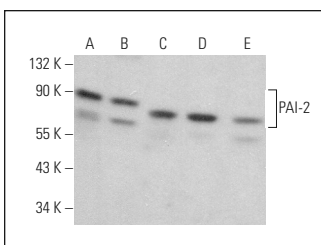
Molecular Weight of PAI-2 plasma: 60 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, A-431 whole cell lysate: sc-2201 or JAR cell lysate: sc-2276.

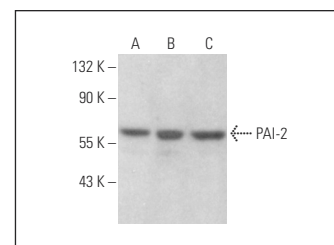
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PAI-2 (E-1): sc-166539. Western blot analysis of PAI-2 expression in K-562 (A), WI-38 (B), C2C12 (C), WEHI-231 (D) and A-10 (E) whole cell lysates.



PAI-2 (E-1): sc-166539. Western blot analysis of PAI-2 expression in K-562 (A), JAR (B) and A-431 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Zhang, X.M., et al. 2019. SERPINB2 overexpression inhibited cell proliferation, invasion and migration, led to G₂/M arrest, and increased radiosensitivity in nasopharyngeal carcinoma cells. *J. Radiat. Res.* pii: rz003.

STORAGE

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