

PAI-1 (3A120): sc-59633

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.

CHROMOSOMAL LOCATION

Genetic locus: SERPINE1 (human) mapping to 7q22.1.

SOURCE

PAI-1 (3A120) is a mouse monoclonal antibody raised against full length PAI-1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PAI-1 (3A120) is recommended for detection of both free and complexed forms of PAI-1 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PAI-1 siRNA (h): sc-36179, PAI-1 shRNA Plasmid (h): sc-36179-SH and PAI-1 shRNA (h) Lentiviral Particles: sc-36179-V.

Molecular Weight of PAI-1: 50 kDa.

Positive Controls: HUV-EC-C whole cell lysate: sc-364180 or PAI-1 (h3): 293T Lysate: sc-158803.

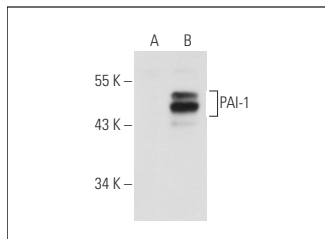
RESEARCH USE

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

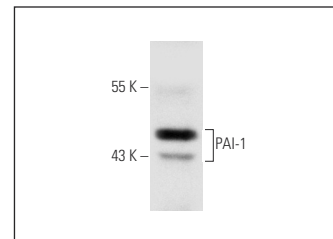
STORAGE

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

DATA



PAI-1 (3A120): sc-59633. Western blot analysis of PAI-1 expression in non-transfected: sc-117752 (A) and human PAI-1 transfected: sc-158803 (B) 293T whole cell lysates.



PAI-1 (3A120): sc-59633. Western blot analysis of human PAI-1 expression in HUV-EC-C whole cell lysate.

SELECT PRODUCT CITATIONS

- Lin, M.T., et al. 2008. Involvement of hypoxia-inducing factor-1 α -dependent plasminogen activator inhibitor-1 up-regulation in Cyr61/CCN1-induced gastric cancer cell invasion. *J. Biol. Chem.* 283: 15807-15815.
- Serrati, S., et al. 2009. TGF β 1 antagonistic peptides inhibit TGF β 1-dependent angiogenesis. *Biochem. Pharmacol.* 77: 813-825.
- Bernot, D., et al. 2011. Plasminogen activator inhibitor 1 is an intracellular inhibitor of furin proprotein convertase. *J. Cell Sci.* 124: 1224-1230.
- Simón, D., et al. 2011. Expression of plasminogen activator inhibitor-1 by olfactory ensheathing glia promotes axonal regeneration. *Glia* 59: 1458-1471.
- Echiburú-Chau, C., et al. 2011. Metastatic suppressor CD44 is related with oxidative stress in breast cancer cell lines. *Int. J. Oncol.* 39: 1481-1489.
- Schneider, C., et al. 2013. Targeting of syndecan-1 by micro-ribonucleic acid miR-10b modulates invasiveness of endometriotic cells via dysregulation of the proteolytic milieu and interleukin-6 secretion. *Fertil. Steril.* 99: 871-881.e1.
- Adammeck, M., et al. 2013. MicroRNA miR-145 inhibits proliferation, invasiveness, and stem cell phenotype of an *in vitro* endometriosis model by targeting multiple cytoskeletal elements and pluripotency factors. *Fertil. Steril.* 99: 1346-1355.e5.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CONJUGATES

See **PAI-1 (C-9): sc-5297** for PAI-1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.