

PAI-1 (H-135): sc-8979

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.

CHROMOSOMAL LOCATION

Genetic locus: SERPINE1 (human) mapping to 7q22.1; Serpine1 (mouse) mapping to 5 G2.

SOURCE

PAI-1 (H-135) is a rabbit polyclonal antibody raised against amino acids 24-158 mapping at the N-terminus of PAI-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PAI-1 (H-135) is recommended for detection of PAI-1 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).

Suitable for use as control antibody for PAI-1 siRNA (h): sc-36179, PAI-1 siRNA (m): sc-36180, PAI-1 siRNA (r): sc-60075, PAI-1 shRNA Plasmid (h): sc-36179-SH, PAI-1 shRNA Plasmid (m): sc-36180-SH, PAI-1 shRNA Plasmid (r): sc-60075-SH, PAI-1 shRNA (h) Lentiviral Particles: sc-36179-V, PAI-1 shRNA (m) Lentiviral Particles: sc-36180-V and PAI-1 shRNA (r) Lentiviral Particles: sc-60075-V.

Molecular Weight of PAI-1: 50 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211 or HUV-EC-C whole cell lysate: sc-364180.

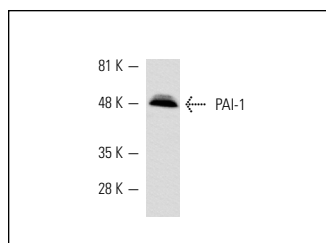
STORAGE

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

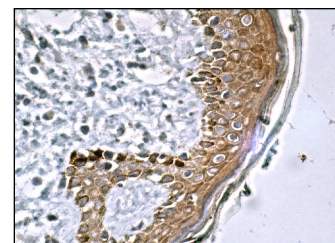
RESEARCH USE

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

DATA



PAI-1 (H-135): sc-8979. Western blot analysis of PAI-1 expression in RAW 264.7 whole cell lysate.



PAI-1 (H-135): sc-8979. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of epidermal cells.

SELECT PRODUCT CITATIONS

- Goumans, M.J., et al. 2002. Balancing the activation state of the endothelium via two distinct TGFβ type I receptors. *EMBO J.* 21: 1743-1753.
- Mahmood, A., et al. 2011. Treatment of TBI with collagen scaffolds and human marrow stromal cells increases the expression of tissue plasminogen (tPA). *J. Neurotrauma* 28: 1199-1207.
- Muñoz-García, B., et al. 2011. TWEAK-Fn14 interaction enhances plasminogen activator inhibitor 1 and tissue factor expression in atherosclerotic plaques and in cultured vascular smooth muscle cells. *Cardiovasc. Res.* 89: 225-233.
- Cardenas, J.C., et al. 2011. Overexpression of the cell cycle inhibitor p16INK4a promotes a prothrombotic phenotype following vascular injury in mice. *Arterioscler. Thromb. Vasc. Biol.* 31: 827-833.
- Toblli, J.E., et al. 2011. Long-term treatment with nebivolol attenuates renal damage in Zucker diabetic fatty rats. *J. Hypertens.* 29: 1613-1623.
- Sakai, T., et al. 2011. Activated inflammatory cells participate in thrombus size through tissue factor and plasminogen activator inhibitor-1 in acute coronary syndrome: immunohistochemical analysis. *Thromb. Res.* 127: 443-449.
- Yim, H.E., et al. 2012. Postnatal early overnutrition dysregulates the intrarenal renin-angiotensin system and extracellular matrix-linked molecules in juvenile male rats. *J. Nutr. Biochem.* 23: 937-945.
- Fernández-Velasco, M., et al. 2012. NOD1 activation induces cardiac dysfunction and modulates cardiac fibrosis and cardiomyocyte apoptosis. *PLoS ONE* 7: e45260.

MONOS
Satisfaction
Guaranteed

Try **PAI-1 (C-9): sc-5297** or **PAI-1 (3A120): sc-59633**, our highly recommended monoclonal alternatives to PAI-1 (H-135). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **PAI-1 (C-9): sc-5297**.