

# PAI-1 (MA124K1): sc-59637

## 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

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2. 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.
3. 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.
4. Mottonen, J., et al. 1992. Structural basis of latency in plasminogen activator inhibitor-1. *Nature* 355: 270-273.
5. Niedbala, M.J. 1993. Cytokine regulation of endothelial cell extracellular proteolysis. *Agents Actions Suppl.* 42: 179-193.
6. Schaefer, B.M., et al. 1995. Differential expression of urokinase-type plasminogen activator (uPA), its receptor (uPA-R) and inhibitor type-2 (PAI-2) during differentiation of keratinocytes in an organotypic coculture system. *Exp. Cell Res.* 220: 415-423.

## CHROMOSOMAL LOCATION

Genetic locus: Serpine1 (mouse) mapping to 5 G2.

## SOURCE

PAI-1 (MA124K1) is a mouse monoclonal antibody raised against full length PAI-1 of rat origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

PAI-1 (MA124K1) is recommended for detection of PAI-1 of mouse and rat origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PAI-1 siRNA (m): sc-36180, PAI-1 siRNA (r): sc-60075, PAI-1 shRNA Plasmid (m): sc-36180-SH, PAI-1 shRNA Plasmid (r): sc-60075-SH, 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.