

# PAI-1 (h3): 293T Lysate: sc-158803

## 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 dissociate 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

1. Riccio, A., et al. 1985. The human urokinase-plasminogen activator gene and its promoter. *Nucl. Acids Res.* 13: 2759-2771.
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 (human) mapping to 7q22.1.

## PRODUCT

PAI-1 (h3): 293T Lysate represents a lysate of human PAI-1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PROTOCOLS

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

## APPLICATIONS

PAI-1 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive PAI-1 antibodies. Recommended use: 10-20 µl per lane.

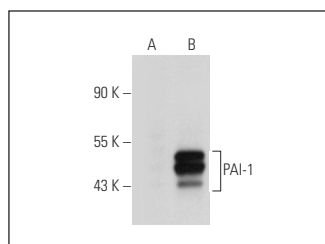
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PAI-1 (C-9): sc-5297 is recommended as a positive control antibody for Western Blot analysis of enhanced human PAI-1 expression in PAI-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

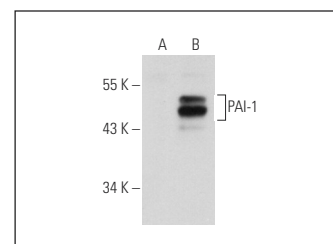
## RECOMMENDED SUPPORT REAGENTS

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.

## DATA



PAI-1 (C-9): sc-5297. 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 PAI-1 expression in non-transfected: sc-117752 (A) and human PAI-1 transfected: sc-158803 (B) 293T whole cell lysates.

## RESEARCH USE

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