

## PAI-1 (C-20): sc-6642

### 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 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-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.

Blocking peptide available for competition studies, sc-6642 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

PAI-1 (C-20) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PAI-1 (C-20) is also recommended for detection of PAI-1 in additional species, including equine, canine, bovine and porcine.

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.

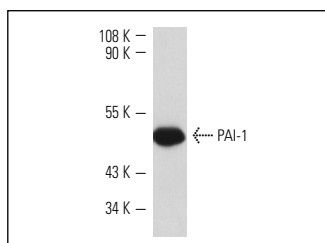
Molecular Weight of PAI-1: 50 kDa.

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

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### DATA



PAI-1 (C-20): sc-6642. Western blot analysis of human recombinant PAI-1.

### SELECT PRODUCT CITATIONS

- Moeller, B.J., et al. 2004. Radiation activates HIF-1 to regulate vascular radiosensitivity in tumors: role of reoxygenation, free radicals, and stress granules. *Cancer Cell* 5: 429-441.
- Ho, Y.L., et al. 2012. Korean red ginseng suppresses metastasis of human hepatoma SK-Hep1 cells by inhibiting matrix metalloproteinase-2/-9 and urokinase plasminogen activator. *Evid. Based Complement. Alternat. Med.* 2012: 965846.

### 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.

### PROTOCOLS

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



Try **PAI-1 (C-9): sc-5297** or **PAI-1 (3A120): sc-59633**, our highly recommended monoclonal alternatives to PAI-1 (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **PAI-1 (C-9): sc-5297**.