

PN-1 (H-69): sc-98571

BACKGROUND

The serine protease inhibitors (serpins) compose a superfamily of proteins with a diverse set of functions, including the control of blood coagulation, complement activation, programmed cell death and development. Serpins are secreted glycoproteins that contain a stretch of peptide that mimics a true substrate for a corresponding serine protease. Protease nexin-1 (PN-1) is a serpin that inactivates several proteases, including thrombin, urokinase, plasminogen activators (PA) and plasmin. It is involved in tissue remodeling, cellular invasiveness, matrix degradation and tumor growth. PN-1 expression is abundant in the nervous system, where it inhibits thrombin, thereby playing a role in neural injury and repair processes. An imbalance between PN-1 and thrombin may be a contributing factor in the pathology of Alzheimer's disease.

REFERENCES

1. Mulligan, L.P., Rosenblatt, D.E., Toms, R. and Johnson, D. 1991. Protease nexin-1 activity in cultured Schwann cells. *Neurosci. Lett.* 128: 42-46.
2. Vaughan, P.J., Su, J., Cotman, C.W. and Cunningham, D.D. 1994. Protease nexin-1, a potent thrombin inhibitor, is reduced around cerebral blood vessels in Alzheimer's disease. *Brain Res.* 668: 160-170.

CHROMOSOMAL LOCATION

Genetic locus: SERPINE2 (human) mapping to 2q36.1; Serpine2 (mouse) mapping to 1 C4.

SOURCE

PN-1 (H-69) is a rabbit polyclonal antibody raised against amino acids 246-314 mapping within an internal region of PN-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

PN-1 (H-69) is recommended for detection of PN-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).

PN-1 (H-69) is also recommended for detection of PN-1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PN-1 siRNA (h): sc-45254, PN-1 siRNA (m): sc-45255, PN-1 shRNA Plasmid (h): sc-45254-SH, PN-1 shRNA Plasmid (m): sc-45255-SH, PN-1 shRNA (h) Lentiviral Particles: sc-45254-V and PN-1 shRNA (m) Lentiviral Particles: sc-45255-V.

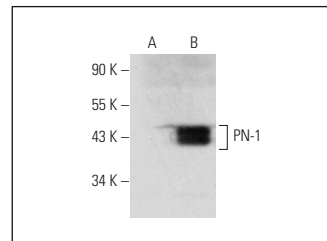
Molecular Weight of PN-1: 44 kDa.

Positive Controls: PN-1 (m): 293T Lysate: sc-122667, mouse brain extract: sc-2253 or rat heart extract: sc-2393.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PN-1 (H-69): sc-98571. Western blot analysis of PN-1 expression in non-transfected: sc-117752 (A) and mouse PN-1 transfected: sc-122667 (B) 293T whole cell lysates.

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 or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **PN-1 (C-12): sc-365650** or **PN-1 (4B3): sc-81717**, our highly recommended monoclonal alternatives to PN-1 (H-69).