

# PC-1 (N-20): sc-23676

## BACKGROUND

PC-1 (also known as ectonucleotide pyrophosphatase/phosphodiesterase 1 (ENPP1) or membrane component, chromosome 6, surface marker-1 (M6S1)), is the human homolog of Ly-41 in the mouse. PC-1 is a homodimer with restricted tissue distribution, being first characterized in plasma cells. In addition to its expression on plasma cells, PC-1 is expressed on hepatocytes, renal tubules, salivary duct epithelium, epididymis, capillary endothelium in the brain, and chondrocytes. Most patients with non-insulin-dependent diabetes mellitus (NIDDM) are resistant to both endogenous and exogenous Insulin. Insulin resistance precedes the onset of this disease, suggesting that it may be an initial abnormality. It has been suggested that PC-1 may have a role in the Insulin resistance of NIDDM by direct interaction with the receptor  $\alpha$ -subunit. The gene which encodes PC-1 maps to human chromosome 6q23.2, which is a common site for deletions in human lymphoid neoplasia.

## REFERENCES

1. Takahashi, T., et al. 1970. Surface alloantigens of plasma cells. J. Exp. Med. 131: 1325-1341.
2. Harahap, A.R. and Goding, J.W. 1988. Distribution of the murine plasma cell antigen PC-1 in non-lymphoid tissues. J. Immunol. 141: 2317-2320.

## CHROMOSOMAL LOCATION

Genetic locus: ENPP1 (human) mapping to 6q23.2.

## SOURCE

PC-1 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PC-1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-23676 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PC-1 (N-20) is recommended for detection of PC-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

Suitable for use as control antibody for PC-1 siRNA (h): sc-40811, PC-1 shRNA Plasmid (h): sc-40811-SH and PC-1 shRNA (h) Lentiviral Particles: sc-40811-V.

Molecular Weight of PC-1 monomer: 130 kDa.

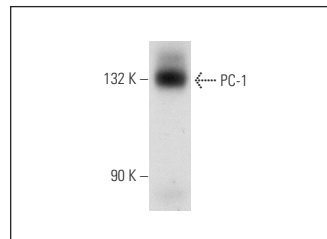
Molecular Weight of PC-1 homodimer: 230-260 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or MIA PaCa-2 cell lysate: sc-2285.

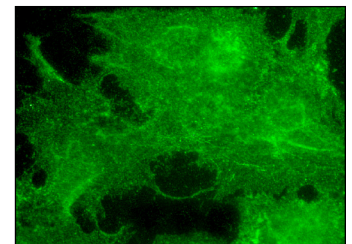
## RECOMMENDED SECONDARY REAGENTS

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



PC-1 (N-20): sc-23676. Western blot analysis of PC-1 expression in Hep G2 whole cell lysate.



PC-1 (N-20): sc-23676. Immunofluorescence staining of formalin-fixed HepG2 cells showing membrane localization.

## SELECT PRODUCT CITATIONS

1. Di Paola, R., et al. 2011. ENPP1 affects Insulin action and secretion: evidences from *in vitro* studies. PLoS ONE 5: e19462.

## 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.


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Try **PC-1 (H-7): sc-393419** or **PC-1 (F-8): sc-166649**, our highly recommended monoclonal alternatives to PC-1 (N-20).