

# Pim-1 (N-16): sc-7857

## BACKGROUND

Pim-1 is a serine/threonine kinase that cooperates with c-Myc in lymphoid cell transformation. The expression of Pim-1 increases during the progression from early to late G<sub>1</sub>, remaining high at the G<sub>1</sub>/S boundary and G<sub>2</sub> phases of the cell cycle. Pim-1 is regulated at both the transcriptional and translational level, and it has been shown to be induced by IL-2 stimulation. Pim-1 also plays a role in T-cell differentiation, and it has been shown to stimulate c-Myc-mediated apoptosis upstream of caspase-3-like proteases.

## REFERENCES

- Liang, H., et al. 1996. Ubiquitous expression and cell cycle regulation of the protein kinase Pim-1. *Arch. Biochem. Biophys.* 330: 259-265.
- Rohwer, F., et al. 1996. The effect of IL-2 treatment on transcriptional attenuation in proto-oncogenes Pim-1 and c-Myb in human thymic blast cells. *J. Immunol.* 157: 643-649.

## CHROMOSOMAL LOCATION

Genetic locus: PIM1 (human) mapping to 6p21.2; Pim1 (mouse) mapping to 17 A3.3.

## SOURCE

Pim-1 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Pim-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-7857 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Pim-1 (N-16) is recommended for detection of Pim-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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Pim-1 (N-16) is also recommended for detection of Pim-1 in additional species, including equine, canine, bovine, porcine and feline.

Suitable for use as control antibody for Pim-1 siRNA (h): sc-36225, Pim-1 siRNA (m): sc-36226, Pim-1 shRNA Plasmid (h): sc-36225-SH, Pim-1 shRNA Plasmid (m): sc-36226-SH, Pim-1 shRNA (h) Lentiviral Particles: sc-36225-V and Pim-1 shRNA (m) Lentiviral Particles: sc-36226-V.

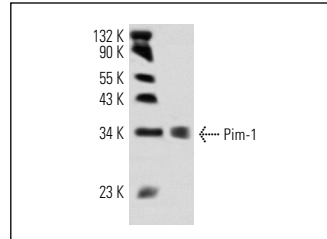
Molecular Weight of Pim-1: 33 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, mouse spleen extract: sc-2391 or PC-3 cell lysate: sc-2220.

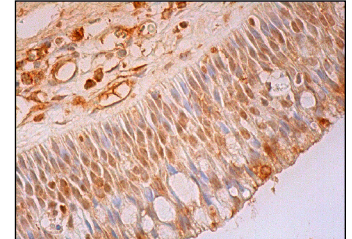
## STORAGE

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

## DATA



Pim-1 (N-16): sc-7857. Western blot analysis of Pim-1 expression in mouse spleen tissue extract.



Pim-1 (N-16): sc-7857. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing nuclear and cytoplasmic staining of respiratory epithelial cells.

## SELECT PRODUCT CITATIONS

- Dolzign, H., et al. 2001. Establishment of normal, terminally differentiating mouse erythroid progenitors: molecular characterization by cDNA arrays. *FASEB J.* 15: 1442-1444.
- Nieborowska-Skorska, M., et al. 2002. Complementary functions of the antiapoptotic protein A1 and serine/threonine kinase Pim-1 in the Bcr/Abl-mediated leukemogenesis. *Blood* 99: 4531-4539.
- Klejman, A., et al. 2002. The Src family kinase Hck couples Bcr/Abl to Stat5 activation in myeloid leukemia cells. *EMBO J.* 21: 5766-5774.
- Zippo, A., et al. 2004. Identification of Flk-1-target genes in vasculogenesis: Pim-1 is required for endothelial and mural cell differentiation *in vitro*. *Blood* 103: 4536-4544.
- Hassel, J.C., et al. 2008. STAT5 contributes to antiapoptosis in melanoma. *Melanoma Res.* 18: 378-385.

## 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 **Pim-1 (G-11): sc-374116** or **Pim-1 (12H8): sc-13513**, our highly recommended monoclonal alternatives to Pim-1 (N-16). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Pim-1 (G-11): sc-374116**.