

Pim-1 (E-16): sc-26375

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 G₁, remaining high at the G₁/S boundary and G₂ 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.
- Mochizuki, T., et al. 1997. Pim-1 kinase stimulates c-Myc-mediated death signaling upstream of caspase-3 (CPP32)-like protease activation. *Oncogene* 15: 1471-1480.
- Hoover, D.S., et al. 1997. Pim-1 protein expression is regulated by its 5'-untranslated region and translation initiation factor eIF-4E. *Cell Growth Differ.* 8: 1371-1380.
- Levenson, J.D., et al. 1998. Pim-1 kinase and p100 cooperate to enhance c-Myb activity. *Mol. Cell* 2: 417-425.
- Schmidt, T., et al. 1998. Evidence implicating Gfi-1 and Pim-1 in pre-T-cell differentiation steps associated with β -selection. *EMBO J.* 17: 5349-5359.

CHROMOSOMAL LOCATION

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

SOURCE

Pim-1 (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Pim-1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-26375 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

Pim-1 (E-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 μ g per 100-500 μ g 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).

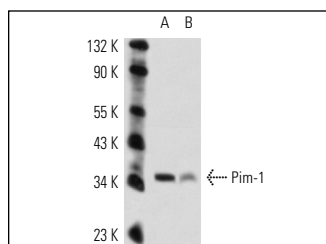
Pim-1 (E-16) is also recommended for detection of Pim-1 in additional species, including equine, canine, bovine, porcine and feline.

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.

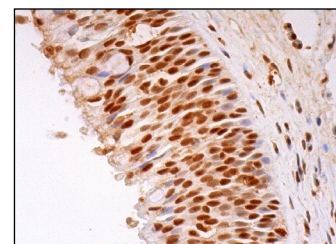
Molecular Weight of Pim-1: 33 kDa.

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

DATA



Pim-1 (E-16): sc-26375. Western blot analysis of Pim-1 expression in K-562 (A) and PC-3 (B) whole cell lysates.



Pim-1 (E-16): sc-26375. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing nuclear staining of respiratory epithelial cells.

RESEARCH USE

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



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