

# Pim-1 (H-43): sc-28777

## 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

1. 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.
2. Liang, H., et al. 1996. Ubiquitous expression and cell cycle regulation of the protein kinase PIM-1. *Arch. Biochem. Biophys.* 330: 259-265.
3. Hoover, D.S., et al. 1997. Pim-1 protein expression is regulated by its 5'-untranslated region and translation initiation factor Elf-4E. *Cell Growth Differ.* 8: 1371-1380.

## CHROMOSOMAL LOCATION

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

## SOURCE

Pim-1 (H-43) is a rabbit polyclonal antibody raised against amino acids 271-313 mapping at the C-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.

## APPLICATIONS

Pim-1 (H-43) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Pim-1 (H-43) is also recommended for detection of Pim-1 in additional species, including equine, canine, bovine and porcine.

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.

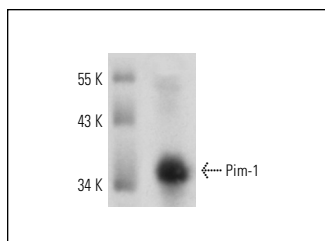
Molecular Weight of Pim-1: 33 kDa.

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

## 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



Pim-1 (H-43): sc-28777. Western blot analysis of Pim-1 expression in mouse spleen tissue extract.

## SELECT PRODUCT CITATIONS

1. Vuong, B.Q., et al. 2009. Specific recruitment of protein kinase A to the immunoglobulin locus regulates class-switch recombination. *Nat. Immunol.* 10: 420-426.
2. Xu, D., et al. 2011. The oncogenic kinase Pim-1 is modulated by K-Ras signaling and mediates transformed growth and radioresistance in human pancreatic ductal adenocarcinoma cells. *Carcinogenesis* 32: 488-495.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Pim-1 (G-11): sc-374116** or **Pim-1 (12H8): sc-13513**, our highly recommended monoclonal alternatives to Pim-1 (H-43). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Pim-1 (G-11): sc-374116**.