

Pim-2 (H-73): sc-28778

BACKGROUND

The Pim-2 gene product (provirus integration site for Moloney murine leukemia virus), is a serine/threonine kinase that is capable of autophosphorylation. Human transcripts for Pim-2 have been detected in hematopoietic lineages as well as leukemic and lymphomic cells (K-562, HL-60, Raji, SW480, testis, small intestine and colon). Additionally, Pim-2 kinase is found at moderate levels and is distributed evenly throughout the brain. Pim-2 kinase is implicated in tumor phenotypes and may be involved in the formation and preservation of long-term potentiation (LTP), a profuse, activity-dependent enhancement of synaptic efficacy that is implicated in long-term memory.

REFERENCES

1. Van der Lugt, N.M., et al. 1995. Proviral tagging in E μ -Myc transgenic mice lacking the Pim-1 proto-oncogene leads to compensatory activation of Pim-2. *EMBO J.* 11: 2536-2544.
2. Allen, J.D., et al. 1997. Pim-2 transgene induces lymphoid tumors, exhibiting potent synergy with c-Myc. *Oncogene* 10: 1133-1141.
3. Baytel, D., et al. 1998. The human Pim-2 proto-oncogene and its testicular expression. *Biochim. Biophys. Acta* 1444: 312-313.
4. Konietzko, U., et al. 1999. Pim kinase expression is induced by LTP stimulation and required for the consolidation of enduring LTP. *EMBO J.* 18: 3359-3369.
5. Eichmann, A., et al. 2000. Developmental expression of Pim kinases suggests functions also outside of the hematopoietic system. *Oncogene* 19: 1215-1224.
6. Hammerman, P.S., et al. 2004. Lymphocyte transformation by Pim-2 is dependent on nuclear factor- κ B activation. *Cancer Res.* 64: 8341-8348.
7. Dai, J.M., et al. 2005. Antisense oligodeoxynucleotides targeting the serine/threonine kinase Pim-2 inhibited proliferation of DU 145 cells. *Acta Pharmacol. Sin.* 26: 364-368.

CHROMOSOMAL LOCATION

Genetic locus: PIM2 (human) mapping to Xp11.23; Pim2 (mouse) mapping to X A1.1.

SOURCE

Pim-2 (H-73) is a rabbit polyclonal antibody raised against amino acids 244-293 mapping near the N-terminus of Pim-2 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.

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.

APPLICATIONS

Pim-2 (H-73) is recommended for detection of Pim-2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Pim-2 (H-73) is also recommended for detection of Pim-2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Pim-2 siRNA (h): sc-39145, Pim-2 siRNA (m): sc-36227, Pim-2 shRNA Plasmid (h): sc-39145-SH, Pim-2 shRNA Plasmid (m): sc-36227-SH, Pim-2 shRNA (h) Lentiviral Particles: sc-39145-V and Pim-2 shRNA (m) Lentiviral Particles: sc-36227-V.

Molecular Weight of human Pim-2 short isoform: 34 kDa.

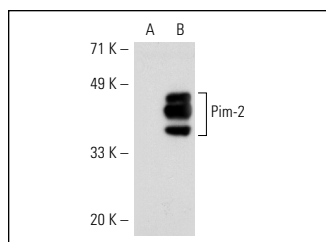
Molecular Weight of mouse Pim-2 short isoform: 34 kDa.

Molecular Weight of mouse Pim-2 medium isoform: 38 kDa.

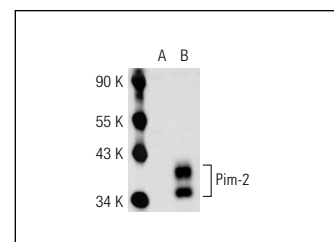
Molecular Weight of mouse Pim-2 long isoform: 40 kDa.

Positive Controls: Pim-2 (h2): 293 lysate: sc-113219, CTLL-2 cell lysate: sc-2242 or Pim-2 (m): 293T lysate: sc-122581.

DATA



Pim-2 (H-73): sc-28778. Western blot analysis of Pim-2 expression in non-transfected: sc-110760 (A) and human Pim-2 transfected: sc-113219 (B) 293 whole cell lysates.



Pim-2 (H-73): sc-28778. Western blot analysis of Pim-2 expression in non-transfected: sc-117752 (A) and mouse Pim-2 transfected: sc-122581 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Mizuki, M., et al. 2003. Suppression of myeloid transcription factors and induction of STAT response genes by AML-specific Flt3 mutations. *Blood* 101: 3164-3173.
2. Behan, J.W., et al. 2009. Adipocytes impair leukemia treatment in mice. *Cancer Res.* 69: 7867-7874.



Try **Pim-2 (1D12): sc-13514** or **Pim-2 (F-4): sc-271893**, our highly recommended monoclonal alternatives to Pim-2 (H-73). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Pim-2 (1D12): sc-13514**.