SANTA CRUZ BIOTECHNOLOGY, INC.

Pim-2 (C-20): sc-13675

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMSOMAL LOCATION

Genetic locus: PIM2 (human) mapping to Xp11.23.

SOURCE

Pim-2 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Pim-2 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-13675 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Pim-2 (C-20) is recommended for detection of Pim-2 of 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).

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

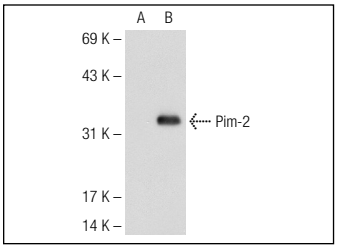
Molecular Weight of mouse Pim-2 long isoform: 40 kDa.

Positive Controls: Pim-2 (h4): 293T Lysate: sc-111264.

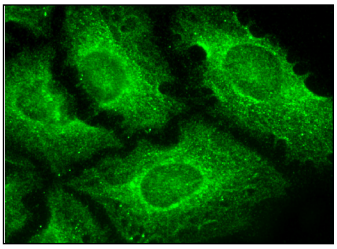
STORAGE

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

DATA



Pim-2 (C-20): sc-13675. Western blot analysis of Pim-2 expression in non-transfected: sc-117752 (**A**) and human Pim-2 transfected: sc-111264 (**B**) 293T whole cell lysates.



Pim-2 (C-20): sc-13675. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

SELECT PRODUCT CITATIONS

1. Yamada, S., et al. 2004. Gene expression profiling identifies a set of transcripts that are up-regulated inhuman testicular seminoma. DNA Res. 11: 335-344.
2. Aho, T.L., et al. 2005. Expression of human Pim family genes is selectively upregulated by cytokines promoting T helper type 1, but not T helper type 2, cell differentiation. Immunology 116: 82-88.
3. Dai, H., et al. 2005. Pim-2 upregulation: biological implications associated with disease progression and perinueral invasion in prostate cancer. Prostate 65: 276-286.
4. Basu, S., et al. 2008. Cutting edge: FOXP3-mediated induction of Pim-2 allows human T regulatory cells to preferentially expand in rapamycin. J. Immunol. 180: 5794-5798.

RESEARCH USE

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

PROTOCOLS

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