

Pim-2 (h3): 293T Lysate: sc-158853

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., Domen, J., Verhoeven, E., Linders, K., van der Gulden, H., Allen, J. and Berns, A. 1995. Proviral tagging in E μ -Myc transgenic mice lacking the Pim-1 proto-oncogene leads to compensatory activation of Pim-2. *EMBO J.* 14: 2536-2544.
2. Allen, J.D., Verhoeven, E., Domen, J., van der Valk, M. and Berns, A. 1997. Pim-2 transgene induces lymphoid tumors, exhibiting potent synergy with c-Myc. *Oncogene* 15: 1133-1141.
3. Baytel, D., Shalom, S., Madgar, I., Weissenberg, R. and Don, J. 1998. The human Pim-2 proto-oncogene and its testicular expression. *Biochim. Biophys. Acta* 1442: 274-285.
4. Konietzko, U., Kauselmann, G., Scafidi, J., Staubli, U., Mikkers, H., Berns, A., Schweizer, M., Waltereit, R. and Kuhl, D. 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., Yuan, L., Breant, C., Alitalo, K. and Koskinen, P.J. 2000. Developmental expression of Pim kinases suggests functions also outside of the hematopoietic system. *Oncogene* 19: 1215-1224.
6. Hammerman, P.S., Fox, C.J., Cinalli, R.M., Xu, A., Wagner, J.D., Lindsten, T. and Thompson, C.B. 2004. Lymphocyte transformation by Pim-2 is dependent on nuclear factor- κ B activation. *Cancer Res.* 64: 8341-8348.
7. Dai, J.M., Zhang, S.Q., Zhang, W., Lin, R.X., Ji, Z.Z. and Wang, S.Q. 2005. Antisense oligodeoxynucleotides targeting the serine/threonine kinase Pim-2 inhibited proliferation of DU 145 cells. *Acta Pharmacol. Sin.* 26: 364-368.
8. Hammerman, P.S., Fox, C.J., Birnbaum, M.J. and Thompson, C.B. 2005. The Pim and Akt oncogenes are independent regulators of hematopoietic cell growth and survival. *Blood* 105: 4477-4483.

CHROMOSOMAL LOCATION

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

PRODUCT

Pim-2 (h3): 293T Lysate represents a lysate of human Pim-2 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

Pim-2 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive Pim-2 antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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