

PRAM-1 (h3): 293T Lysate: sc-159247

BACKGROUND

Complete remission of acute promyelocytic leukemia can be achieved by treating patients with retinoic acid, and PML-RAR α (promyelocytic leukemia-retinoic acid receptor α fusion protein) plays a major role in mediating retinoic acid effects in leukemia cells. The retinoic acid-induced gene, PRAM-1 (PML-RAR α target gene encoding an adaptor molecule 1) encodes an adaptor protein which is expressed and modulated during normal human myelopoiesis. PRAM-1 expression is hindered by expression of PML-RAR α . The 718 amino acid PRAM-1 protein contains 8 N-terminal proline-rich repeats and several proline residues that are clustered as type I or type II SH3 recognition motifs. PRAM-1 demonstrates expression in hematopoietic tissues and lung.

REFERENCES

1. Moog-Lutz, C., Peterson, E.J., Lutz, P.G., Eliason, S., Cavé-Riant, F., Singer, A., Di Gioia, Y., Dmowski, S., Kamens, J., Cayre, Y.E. and Koretzky, G. 2001. PRAM-1 is a novel adaptor protein regulated by retinoic acid (RA) and promyelocytic leukemia (PML)-RA receptor α in acute promyelocytic leukemia cells. *J. Biol. Chem.* 276: 22375-22381.
2. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 606466. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Clemens, R.A. Newbrough, S.A., Chung, E.Y., Gheith, S., Singer, A.L., Koretzky, G.A and Peterson, E.J. 2004. PRAM-1 is required for optimal integrin-dependent neutrophil function. *Mol. Cell. Biol.* 24: 10923-10932.
4. Denis, F.M. Benecke, A., Di Gioia, Y., Touw, I.P., Cayre, Y.E. and Lutz, P.G. 2005. PRAM-1 potentiates arsenic trioxide-induced JNK activation. *J. Biol. Chem.* 280: 9043-9048.
5. Heuer, K., Sylvester, M., Kliche, S., Pusch, R., Thiemke, K., Schraven, B. and Freund, C. 2006. Lipid-binding HSH3 domains in immune cell adapter proteins. *J. Mol. Biol.* 361: 94-104.
6. Susic, D., Lippton, H., Knight, M. and Frohlich, E.D. 2006. Cardiovascular effects of nonproteolytic activation of prorenin. *Hypertension* 48: E113.
7. Ghaffari, S.H., Rostami, S., Bashash, D., Alimoghaddam, K. and Ghavamzadeh, A. 2006. Real-time PCR analysis of PML-RAR α in newly diagnosed acute promyelocytic leukaemia patients treated with arsenic trioxide as a front-line therapy. *Ann. Oncol.* 17: 1553-1559.
8. Asou, N., Kishimoto, Y., Kiyoi, H., Okada, M., Kawai, Y., Tsuzuki, M., Horikawa, K., Matsuda, M., Shinagawa, K., Kobayashi, T., Ohtake, S., Nishimura, M., Takahashi, M., Yagasaki, F., Takeshita, A., Kimura, Y., Iwanaga, M., Naoe, T. and Ohno, R. 2007. A randomized study with or without intensified maintenance chemotherapy in patients with acute promyelocytic leukemia who have become negative for PML-RAR α transcript after consolidation therapy: the Japan Adult Leukemia Study Group (JALSG) APL97 study. *Blood* 110: 59-66.
9. Kitareewan, S., Roebuck, B.D., Demidenko, E., Sloboda, R.D., Dmitrovsky, E. 2007. Lysosomes and trivalent arsenic treatment in acute promyelocytic leukemia. *J. Natl. Cancer Inst.* 99: 41-52.

CHROMOSOMAL LOCATION

Genetic locus: PRAM1 (human) mapping to 19p13.2.

PRODUCT

PRAM-1 (h3): 293T Lysate represents a lysate of human PRAM-1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

PRAM-1 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive PRAM-1 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.

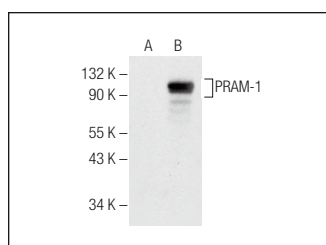
PRAM-1 (A-5): sc-376451 is recommended as a positive control antibody for Western Blot analysis of enhanced human PRAM-1 expression in PRAM-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



PRAM-1 (A-5): sc-376451. Western blot analysis of PRAM-1 expression in non-transfected: sc-117752 (A) and human PRAM-1 transfected: sc-159247 (B) 293T whole cell lysates.

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.

RESEARCH USE

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

PROTOCOLS

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