SANTA CRUZ BIOTECHNOLOGY, INC.

PRAM-1 (K-18): sc-48651

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 alpha 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 eight 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, and immunoblot analysis shows expression of a 97 kDa protein.

REFERENCES

1. Moog-Lutz, C., et al. 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™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606466. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Clemens, R.A. et al. 2004. PRAM-1 is required for optimal integrin-dependent neutrophil function. Mol. Cell. Biol. 24: 10923-10932.
4. Denis, F.M. et al. 2005. PRAM-1 potentiates arsenic trioxide-induced JNK activation. J. Biol. Chem. 280: 9043-9048.
5. Heuer, K. et al. 2006. Lipid-binding HSH3 domains in immune cell adapter proteins. J. Mol. Biol. 361: 94-104.
6. Susic, D. et al. 2006. Cardiovascular effects of nonproteolytic activation of prorenin. Hypertension 48: E113.
7. Ghaffari, S.H. et al. 2006. Real-time PCR analysis of PML-RARα in newly diagnosed acute promyelocytic leukaemia patients treated with arsenic trioxide as a front-line therapy. Ann. Oncol. 17: 1553-1559.
8. Asou, N. et al. 2007. A randomized study with or without intensified maintenance chemotherapy in patients with acute promyelocytic leukemia who have become negative for PML-RARα transcript after consolidation therapy: The Japan adult leukemia study group (JALSG) APL97 study. Blood 110: 59-66.

CHROMOSOMAL LOCATION

Genetic locus: PRAM1 (human) mapping to 19p13.2; Pram1 (mouse) mapping to 17 B1.

SOURCE

PRAM-1 (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PRAM-1 of human origin.

STORAGE

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

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-48651 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PRAM-1 (K-18) is recommended for detection of PRAM-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).

Suitable for use as control antibody for PRAM-1 siRNA (h): sc-61393, PRAM-1 siRNA (m): sc-61394, PRAM-1 shRNA Plasmid (h): sc-61393-SH, PRAM-1 shRNA Plasmid (m): sc-61394-SH, PRAM-1 shRNA (h) Lentiviral Particles: sc-61393-V and PRAM-1 shRNA (m) Lentiviral Particles: sc-61394-V.

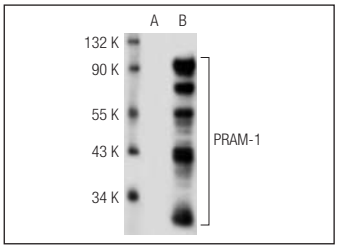
Molecular Weight of PRAM-1: 97 kDa.

Positive Controls: PRAM-1 (h): 293T Lysate: sc-114643 or PRAM-1 (h3): 293T Lysate: sc-159247.

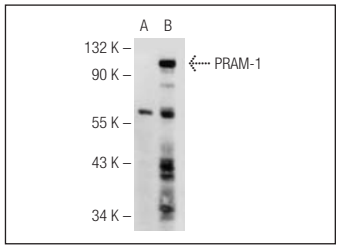
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PRAM-1 (K-18): sc-48651. Western blot analysis of PRAM-1 expression in non-transfected: sc-117752 (**A**) and human PRAM-1 transfected: sc-114643 (**B**) 293T whole cell lysates.



PRAM-1 (K-18): sc-48651. 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.

RESEARCH USE

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