SANTA CRUZ BIOTECHNOLOGY, INC.

PRMT7 (m3): 293T Lysate: sc-122784

BACKGROUND

Arginine methylation is an irreversible protein modification catlyzed by Arginine methyltransferases, such as PRMT7, which uses S-adenosyl-methionine (AdoMet) as the methyl donor. Arginine methylation is implicated in signal transduction, RNA transport and RNA splicing. PRMT7 has two methyltransferase domains, each containing a putative AdoMet-binding motif. The N-terminal methyltransferase domain closely resembles the catalytic core of PRMT5, and the C-terminal domain is most similar to that of PRMT1. Three PRMT7 splice variants have been identified by database analysis. PRMT7 is localized to the nucleus and cytoplasm and moderate expression is observed in adult brain and lung tissues.

REFERENCES

1. Nagase, T., et al. 2001. Prediction of the coding sequences of unidentified human genes. XXI. The complete sequences of 60 new cDNA clones from brain which code for large proteins. DNA Res. 8: 179-187.
2. Miranda, T.B., et al. 2004. PRMT7 is a member of the protein arginine methyltransferase family with a distinct substrate specificity. J. Biol. Chem. 279: 22902-22907.
3. Lee, J.H., et al. 2005. PRMT7, a new protein arginine methyltransferase that synthesizes symmetric dimethyl-arginine. J. Biol. Chem. 280: 3656-3664.
4. Miranda, T.B., et al. 2005. Protein arginine methyltransferase 6 specifically methylates the nonhistone chromatin protein HMGA1a. Biochem. Biophys. Res. Commun. 336: 831-835.
5. Zheng, Z., et al. 2005. A Mendelian locus on chromosome 16 determines susceptibility to doxorubicin nephropathy in the mouse. Proc. Natl. Acad. Sci. USA 102: 2502-2507.
6. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610087. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: Prmt7 (mouse) mapping to 8 D3.

PRODUCT

PRMT7 (m3): 293T Lysate represents a lysate of mouse PRMT7 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

PRMT7 (m3): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive PRMT7 antibodies. Recommended use: 10-20 µl per lane.

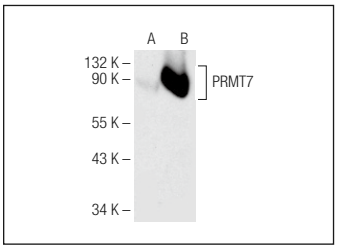
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PRMT7 (E-9): sc-376077 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse PRMT7 expression in PRMT7 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

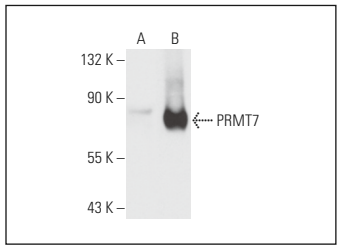
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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



PRMT7 (E-9): sc-376077. Western blot analysis of PRMT7 expression in non-transfected: sc-117752 (**A**) and mouse PRMT7 transfected: sc-122784 (**B**) 293T whole cell lysates.



PRMT7 (D-1): sc-166819. Western blot analysis of PRMT7 expression in non-transfected: sc-117752 (**A**) and mouse PRMT7 transfected: sc-122784 (**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.