SANTA CRUZ BIOTECHNOLOGY, INC.

PRMT7 (H-300): sc-98882

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Arginine methylation is an irreversible protein modification catalyzed by arginine methyltransferases, such as PRMT7, which uses S-adenosylmethionine (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. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610087. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: PRMT7 (human) mapping to 16q22.1; Prmt7 (mouse) mapping to 8 D3.

SOURCE

PRMT7 (H-300) is a rabbit polyclonal antibody raised against amino acids 92-391 mapping near the N-terminus of PRMT7 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.

APPLICATIONS

PRMT7 (H-300) is recommended for detection of PRMT7 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).

PRMT7 (H-300) is also recommended for detection of PRMT7 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for PRMT7 siRNA (h): sc-61405, PRMT7 siRNA (m): sc-61406, PRMT7 shRNA Plasmid (h): sc-61405-SH, PRMT7 shRNA Plasmid (m): sc-61406-SH, PRMT7 shRNA (h) Lentiviral Particles: sc-61405-V and PRMT7 shRNA (m) Lentiviral Particles: sc-61406-V.

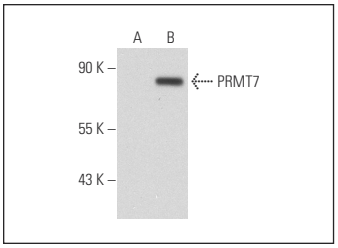
Molecular Weight of PRMT7: 72 kDa.

Positive Controls: PRMT7 (m): 293T Lysate: sc-122782, NIH/3T3 whole cell lysate: sc-2210 or PRMT7 (h): 293 Lysate: sc-110644.

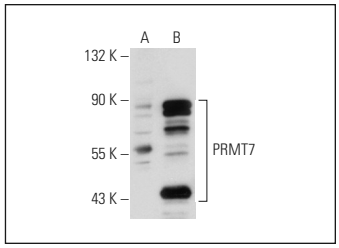
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PRMT7 (H-300): sc-98882. Western blot analysis of PRMT7 expression in non-transfected: sc-117752 (**A**) and mouse PRMT7 transfected: sc-122782 (**B**) 293T whole cell lysates.



PRMT7 (H-300): sc-98882. Western blot analysis of PRMT7 expression in non-transfected: sc-110760 (**A**) and human PRMT7 transfected: sc-110644 (**B**) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Pfeiffer, M.J., et al. 2011. Proteomic analysis of mouse oocytes reveals 28 candidate factors of the "reprogrammome". J. Proteome Res. 10: 2140-2153.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. 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 or our catalog for detailed protocols and support products.