

# PRMT6 (Q-16): sc-55702

## BACKGROUND

A class of proteins termed type 1 protein Arginine N-methyltransferase (PRMT) enzymes contribute to posttranslational modification of RNA-binding proteins, but differ in substrate specificities, oligomerization properties and subcellular localization. PRMTs contain an S-adenosylmethionine motif which functions to add one or two methyl groups to guanidino nitrogens of Arginine (R) side chains. PRMT6, also known as HRMT1L6, is a nuclear protein belonging to the PRMT family and is predominantly expressed in testis and kidney. It is known to methylate histones H3, H4 and H2A. PRMT6 is the major dimethyltransferase for Histone H3 and specifically methylates Histone H3 at R2. Methylation at Histone H3 R2 acts to inhibit Histone H3 K4 trimethylation and ultimately leads to the transcriptional repression of genes that are activated by Histone H3 K4 trimethylation. In addition, PRMT6 methylates HIV TAT, possibly functioning as a form of cellular innate immunity to restrict levels of HIV replication.

## REFERENCES

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3. El-Andaloussi, N., et al. 2006. Arginine methylation regulates DNA polymerase  $\beta$ . *Mol. Cell* 22: 51-62.
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## CHROMOSOMAL LOCATION

Genetic locus: PRMT6 (human) mapping to 1p13.3; Prmt6 (mouse) mapping to 3 F3.

## SOURCE

PRMT6 (Q-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PRMT6 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-55702 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PRMT6 (Q-16) is recommended for detection of PRMT6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

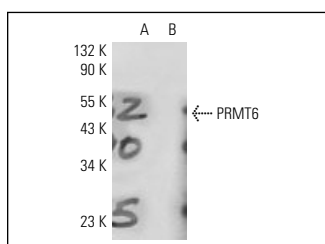
PRMT6 (Q-16) is also recommended for detection of PRMT6 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for PRMT6 siRNA (h): sc-106848, PRMT6 siRNA (m): sc-108029, PRMT6 shRNA Plasmid (h): sc-106848-SH, PRMT6 shRNA Plasmid (m): sc-108029-SH, PRMT6 shRNA (h) Lentiviral Particles: sc-106848-V and PRMT6 shRNA (m) Lentiviral Particles: sc-108029-V.

Molecular Weight of PRMT6: 42 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or KNRK whole cell lysate: sc-2214.

## DATA



PRMT6 (Q-16): sc-55702. Western blot analysis of PRMT6 expression in NIH/3T3 (A) and KNRK (B) nuclear extracts.

## 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.


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Try **PRMT6 (D-5): sc-271744** or **PRMT6 (H-2): sc-365018**, our highly recommended monoclonal alternatives to PRMT6 (Q-16).