

TRMT1 (P-14): sc-132859

BACKGROUND

Transfer RNA (tRNA) modifications help regulate the efficiency of mRNA translation by maintaining the correct reading frames. N(2),N(2)-dimethylguanosine tRNA methyltransferase, also known as TRMT1 or tRNA(guanine-26,N(2)-N(2)) methyltransferase, is a 659 amino acid enzyme that is responsible for tRNA modifications in eukaryotes. Using S-adenosyl-L-methionine as a methyl donor, TRMT1 dimethylates a single guanine residue at position 26 of tRNA. TRMT1, which was initially identified in yeast and *C. elegans*, has a 26% and 31% sequence identity to its yeast and *C. elegans* homologs, respectively. There are two isoforms of TRMT1 produced by alternative splicing events. The TRMT1 gene maps to chromosome 19p13.2 and mutations in this gene lead to abrogated enzyme activity and a decrease in protein levels.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TRMT1 (human) mapping to 19p13.2; Trmt1 (mouse) mapping to 8 C3.

SOURCE

TRMT1 (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TRMT1 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.

Blocking peptide available for competition studies, sc-132859 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TRMT1 (P-14) is recommended for detection of TRMT1 isoforms 1 and 2 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); non cross-reactive with family members TRMT5 or TRMT6.

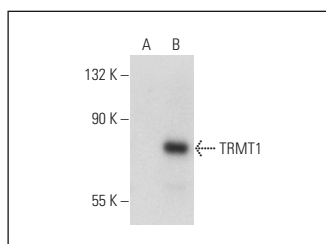
TRMT1 (P-14) is also recommended for detection of TRMT1 isoforms 1 and 2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for TRMT1 siRNA (h): sc-97846, TRMT1 siRNA (m): sc-154683, TRMT1 shRNA Plasmid (h): sc-97846-SH, TRMT1 shRNA Plasmid (m): sc-154683-SH, TRMT1 shRNA (h) Lentiviral Particles: sc-97846-V and TRMT1 shRNA (m) Lentiviral Particles: sc-154683-V.

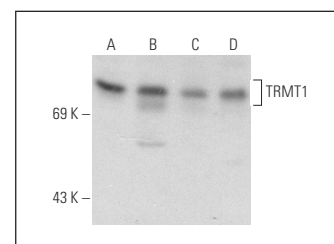
Molecular Weight of TRMT1: 72 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, JAR cell lysate: sc-2276 or TRMT1 (m): 293T Lysate: sc-124296.

DATA



TRMT1 (P-14): sc-132859. Western blot analysis of TRMT1 expression in non-transfected: sc-117752 (A) and mouse TRMT1 transfected: sc-124296 (B) 293T whole cell lysates.



TRMT1 (P-14): sc-132859. Western blot analysis of TRMT1 expression in Jurkat (A), JAR (B), COLO 320DM (C) and PC-3 (D) whole cell lysates.

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.