SANTA CRUZ BIOTECHNOLOGY, INC.

TRMT1 (m): 293T Lysate: sc-124296

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The Power to Question

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 (mouse) mapping to 8 C3.

PRODUCT

TRMT1 (m): 293T Lysate represents a lysate of mouse TRMT1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

TRMT1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive TRMT1 antibodies. Recommended use: 10-20 µl per lane.

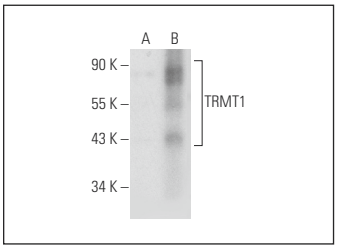
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TRMT1 (F-8): sc-514876 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse TRMT1 expression in TRMT1 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



TRMT1 (F-8): sc-514876. Western blot analysis of TRMT1 expression in non-transfected: sc-117752 (**A**) and mouse TRMT1 transfected: sc-124296 (**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.