

# TRMT6 (N-14): sc-86250

## BACKGROUND

Transfer RNA (tRNA) modifications help regulate the efficiency of mRNA translation by maintaining the correct reading frames within mRNA. TRMT6 (tRNA methyltransferase 6), also known as GCD10 or TRM6, is a 497 amino acid protein that localizes to the nucleus and exists as a heterodimer with TRM61. Expressed in liver, brain, ovary and testis, TRMT6 functions as a substrate-binding subunit of tRNA and is thought to catalyze the formation of N(1)-methyladenine at position 58 in initiator methionyl-tRNA. TRMT6 exists as three alternatively spliced isoforms that, in response to DNA damage, may be phosphorylated by ATM or ATR. The gene encoding TRMT6 maps to human chromosome 20, which houses over 600 genes and comprises nearly 2% of the human genome.

## REFERENCES

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3. Ozanick, S., Krecic, A., Andersland, J. and Anderson, J.T. 2005. The bipartite structure of the tRNA m1A58 methyltransferase from *S. cerevisiae* is conserved in humans. *RNA* 11: 1281-1290.
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6. Wang, X., Jia, H., Jankowsky, E. and Anderson, J.T. 2008. Degradation of hypomodified tRNA(iMet) *in vivo* involves RNA-dependent ATPase activity of the DExH helicase Mtr4p. *RNA* 14: 107-116.

## CHROMOSOMAL LOCATION

Genetic locus: TRMT6 (human) mapping to 20p12.3.

## SOURCE

TRMT6 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TRMT6 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-86250 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TRMT6 (N-14) is recommended for detection of TRMT6 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

TRMT6 (N-14) is also recommended for detection of TRMT6 in additional species, including canine.

Suitable for use as control antibody for TRMT6 siRNA (h): sc-76756, TRMT6 shRNA Plasmid (h): sc-76756-SH and TRMT6 shRNA (h) Lentiviral Particles: sc-76756-V.

Molecular Weight of TRMT6: 56 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **TRMT6 (F-3): sc-271752**, our highly recommended monoclonal alternative to TRMT6 (N-14).