

Trmt2b (M-12): sc-241369

BACKGROUND

Trmt2b (tRNA (uracil-5-)-methyltransferase homolog) is a 504 amino acid member of the RNA M5U methyltransferase family. Trmt2b is believed to be an S-adenosyl-L-methionine-dependent methyltransferase that catalyzes the formation of 5-methyl-uridine at position 54 (M-5-U54) in all tRNA. Trmt2b may also have a role in tRNA stabilization or maturation. The gene that encodes Trmt2b is located on the human X chromosome which consists of about 153 million base pairs and nearly 1,000 genes. The combination of an X and Y chromosome lead to normal male development while two copies of X lead to normal female development. There are a number of conditions related to an unusual number and combination of sex chromosomes being inherited, including Turner's syndrome, Klinefelter's syndrome and Triple X syndrome. Color blindness, hemophilia, and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently as males carry a single X chromosome.

REFERENCES

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6. Choudhury, S.A., Asefa, B., Kauler, P. and Chow, T.Y. 2007. Synergistic effect of TRM2/RNC1 and EXO1 in DNA double-strand break repair in *Saccharomyces cerevisiae*. *Mol. Cell. Biochem.* 304: 127-134.

CHROMOSOMAL LOCATION

Genetic locus: Trmt2b (mouse) mapping to X E3.

SOURCE

Trmt2b (M-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Trmt2b of mouse origin.

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.

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-241369 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Trmt2b (M-12) is recommended for detection of Trmt2b of mouse and rat 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); non cross-reactive with HTF9C.

Suitable for use as control antibody for Trmt2b siRNA (m): sc-108959, Trmt2b shRNA Plasmid (m): sc-108959-SH and Trmt2b shRNA (m) Lentiviral Particles: sc-108959-V.

Molecular Weight of Trmt2b: 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.