SANTA CRUZ BIOTECHNOLOGY, INC.

TRMU (K-13): sc-86923

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

TRMU (tRNA 5-methylaminomethyl-2-thiouridylate methyltransferase), also known as MTO2, MTU1, TRMT, TRMT1 or TRNT1, is a 421 amino acid mitochondrial protein that is evolutionarily conserved and is involved in mitochondrial tRNA modification. Expressed ubiquitously with higher levels of expression in brain, heart, kidney and liver, TRMU functions to catalyze the 2-thiolation of uridine at the wobble position of select tRNA amino acids, including lysine, glutamine and glutamate. This event is required for the formation of 5-taurinomethyl-2-thiouridine, a hypermodified nucleotide that is essential for proper stabilization, aminoacylation and overall function of tRNAs. Polymorphisms in the gene encoding TRMU are thought to aggravate the mitochondrial dysfunction associated with aminoglycoside-induced and non-syndromic deafness, suggesting a role for TRMU in the development of this disorder. Multiple isoforms of TRMU exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TRMU (human) mapping to 22q13.31; Trmu (mouse) mapping to 15 E2.

SOURCE

TRMU (K-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of TRMU of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86923 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TRMU (K-13) is recommended for detection of TRMU of mouse, rat and 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).

TRMU (K-13) is also recommended for detection of TRMU in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TRMU siRNA (h): sc-76757, TRMU siRNA (m): sc-154686, TRMU shRNA Plasmid (h): sc-76757-SH, TRMU shRNA Plasmid (m): sc-154686-SH, TRMU shRNA (h) Lentiviral Particles: sc-76757-V and TRMU shRNA (m) Lentiviral Particles: sc-154686-V.

Molecular Weight of TRMU: 47 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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 or our catalog for detailed protocols and support products.