

TFB1M (D-13): sc-169583

BACKGROUND

TFB1M (transcription factor B1, mitochondrial), also known as CGI75, mtTFB or CGI-75, is a 346 amino acid mitochondrial protein that, along with mtTFA and MtRPOL, is required for the transcription of genes from mitochondrial DNA. Expressed ubiquitously, TFB1M functions as an S-adenosyl-L-methionine-dependent methyltransferase that specifically dimethylates mitochondrial 12S rRNA at the conserved stem loop and is required for mitochondrial DNA transcription. Variations in the gene encoding TFB1M are thought to influence the pathogenesis of aminoglycoside-induced deafness (AID), a disorder that is characterized by hearing loss and is caused by irregular methylation of 12S rRNA. The gene encoding TFB1M maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome.

REFERENCES

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RESEARCH USE

For research use only, not for use in diagnostic procedures.

CHROMOSOMAL LOCATION

Genetic locus: TFB1M (human) mapping to 6q25.3; Tfb1m (mouse) mapping to 17 A1.

SOURCE

TFB1M (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TFB1M 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-169583 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TFB1M (D-13) is recommended for detection of TFB1M 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); non cross-reactive with TFB2M.

TFB1M (D-13) is also recommended for detection of TFB1M in additional species, including bovine and porcine.

Suitable for use as control antibody for TFB1M siRNA (h): sc-95185, TFB1M siRNA (m): sc-154228, TFB1M shRNA Plasmid (h): sc-95185-SH, TFB1M shRNA Plasmid (m): sc-154228-SH, TFB1M shRNA (h) Lentiviral Particles: sc-95185-V and TFB1M shRNA (m) Lentiviral Particles: sc-154228-V.

Molecular Weight of TFB1M: 40 kDa.

Positive Controls: 721 B whole cell lysate.

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.

PROTOCOLS

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