

MRP-S18C (D-14): sc-104413

BACKGROUND

Mitochondrial ribosomes consist of a large 39S subunit and a small 28S subunit, both of which are comprised of multiple mitochondrial ribosomal proteins (MRPs) that are encoded by nuclear genes and are essential for protein synthesis within mitochondria. MRP-S18C (mitochondrial ribosomal protein S18BC), also known as MRPS18-1, is a 142 amino acid protein that localizes to the mitochondrion, where it exists as a component of the 28S ribosomal subunit and works in conjunction with other MRPs to mediate protein synthesis. MRP-S18C is a member of the ribosomal protein S18P family, which also includes MRP-S18A and MRP-S18B. The gene encoding MRP-S18C maps to human chromosome 4, which encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MRPS18C (human) mapping to 4q21.23; Mrps18c (mouse) mapping to 5 E4.

SOURCE

MRP-S18C (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MRP-S18C 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-104413 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MRP-S18C (D-14) is recommended for detection of MRP-S18C of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 other MRP-S family members.

MRP-S18C (D-14) is also recommended for detection of MRP-S18C in additional species, including bovine.

Suitable for use as control antibody for MRP-S18C siRNA (h): sc-89249, MRP-S18C siRNA (m): sc-106253, MRP-S18C shRNA Plasmid (h): sc-89249-SH, MRP-S18C shRNA Plasmid (m): sc-106253-SH, MRP-S18C shRNA (h) Lentiviral Particles: sc-89249-V and MRP-S18C shRNA (m) Lentiviral Particles: sc-106253-V.

Molecular Weight of MRP-S18C: 16 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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 or our catalog for detailed protocols and support products.