SANTA CRUZ BIOTECHNOLOGY, INC.

MRP-L14 (C-12): sc-107765

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Mammalian mitochondrial ribosomes (mitoribosomes) are responsible for protein synthesis within the mitochondrion. Mitoribosomes are composed of a 4:1 ratio of protein to RNA, with the proteins forming two subunits, the 28S subunit and the 39S subunit. Across species, the proteins that make up the mitoribosome subunits vary greatly in sequence, preventing easy recognition by sequence homology. MRP-L14 (mitochondrial ribosomal protein L14), also known as L14mt, MRPL32 or RMPL32, is a 145 amino acid protein that localizes to mitochondria, where it exists as a component of the 39S ribosomal subunit and works in conjunction with other MRPs to mediate protein synthesis. Belonging to the ribosomal protein L14P family, MRP-L14 is located on human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MRPL14 (human) mapping to 6p21.1; Mrpl14 (mouse) mapping to 17 B3.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SOURCE

MRP-L14 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MRP-L14 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-107765 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MRP-L14 (C-12) is recommended for detection of MRP-L14 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 other MRP-L family members.

Suitable for use as control antibody for MRP-L14 siRNA (h): sc-95086, MRP-L14 siRNA (m): sc-149582, MRP-L14 shRNA Plasmid (h): sc-95086-SH, MRP-L14 shRNA Plasmid (m): sc-149582-SH, MRP-L14 shRNA (h) Lentiviral Particles: sc-95086-V and MRP-L14 shRNA (m) Lentiviral Particles: sc-149582-V.

Molecular Weight of MRP-L14: 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) 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.

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.