

MRP-S33 (F-15): sc-104422

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-S33 (mitochondrial ribosomal protein S33), also known as PTD003, is a 106 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. The gene encoding MRP-S33 maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Defects in some of the genes localized to chromosome 7 have been linked to Osteogenesis imperfecta, Williams-Beuren syndrome, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MRPS33 (human) mapping to 7q34; Mrps33 (mouse) mapping to 6 B1.

SOURCE

MRP-S33 (F-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MRP-S33 of human origin.

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-104422 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MRP-S33 (F-15) is recommended for detection of MRP-S33 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-S family members.

Suitable for use as control antibody for MRP-S33 siRNA (h): sc-89613, MRP-S33 siRNA (m): sc-106256, MRP-S33 shRNA Plasmid (h): sc-89613-SH, MRP-S33 shRNA Plasmid (m): sc-106256-SH, MRP-S33 shRNA (h) Lentiviral Particles: sc-89613-V and MRP-S33 shRNA (m) Lentiviral Particles: sc-106256-V.

Molecular Weight of MRP-S33: 13 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.

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.