

MRP-L55 (G-12): sc-104398

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-L55 (mitochondrial ribosomal protein L55), is a 128 amino acid protein that localizes to the mitochondrion, where it exists as a component of the 39S ribosomal subunit and works in conjunction with other MRPs to mediate protein synthesis. In *Drosophila melanogaster*, MRP-L55 expression is critical for development and is involved in mitochondrial biogenesis and G₂/M phase cell cycle progression. The gene encoding MRP-L55 maps to human chromosome 1, which spans about 260 million base pairs and comprises nearly 8% of the human genome. There are two isoforms of MRP-L55 that are produced as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MRPL55 (human) mapping to 1q42.13; Mrpl55 (mouse) mapping to 11 B1.3.

SOURCE

MRP-L55 (G-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MRP-L55 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-104398 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MRP-L55 (G-12) is recommended for detection of MRP-L55 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).

Suitable for use as control antibody for MRP-L55 siRNA (h): sc-88244, MRP-L55 siRNA (m): sc-106248, MRP-L55 shRNA Plasmid (h): sc-88244-SH, MRP-L55 shRNA Plasmid (m): sc-106248-SH, MRP-L55 shRNA (h) Lentiviral Particles: sc-88244-V and MRP-L55 shRNA (m) Lentiviral Particles: sc-106248-V.

Molecular Weight of MRP-L55: 15 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.

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.