

MRP-L4 (E-19): sc-243523

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-L4 (mitochondrial ribosomal protein L4), also known as L4mt or CGI-28, is a 311 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. MRP-L4 exists as two alternatively spliced isoforms and is encoded by a gene located on human chromosome 19p13.2. Consisting of around 63 million bases with over 1,400 genes, chromosome 19 makes up over 2% of human genomic DNA. Chromosome 19 is recognized for having the greatest gene density of the human chromosomes. Chromosome 19 is the genetic home for a number of immunoglobulin superfamily members including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG families, and Fc α receptors.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MRPL4 (human) mapping to 19p13.2; Mrpl4 (mouse) mapping to 9 A3.

RESEARCH USE

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

SOURCE

MRP-L4 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MRP-L4 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-243523 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MRP-L4 (E-19) is recommended for detection of MRP-L4 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-L4 siRNA (h): sc-97597, MRP-L4 siRNA (m): sc-149601, MRP-L4 shRNA Plasmid (h): sc-97597-SH, MRP-L4 shRNA Plasmid (m): sc-149601-SH, MRP-L4 shRNA (h) Lentiviral Particles: sc-97597-V and MRP-L4 shRNA (m) Lentiviral Particles: sc-149601-V.

Molecular Weight of MRP-L4 isoforms: 30/35 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.