

# MRP-L49 (H-12): sc-515183

## 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-L49 (mitochondrial ribosomal protein L49), also known as Neighbor of FAU and protein NOF1, is a 166 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. The gene encoding MRP-L49 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

## REFERENCES

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3. Kenmochi, N., et al. 2001. The human mitochondrial ribosomal protein genes: mapping of 54 genes to the chromosomes and implications for human disorders. *Genomics* 77: 65-70.
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## CHROMOSOMAL LOCATION

Genetic locus: MRPL49 (human) mapping to 11q13.1; Mrpl49 (mouse) mapping to 19 A.

## SOURCE

MRP-L49 (H-12) is a mouse monoclonal antibody raised against amino acids 24-166 mapping at the C-terminus of MRP-L49 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

MRP-L49 (H-12) is recommended for detection of MRP-L49 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for MRP-L49 siRNA (h): sc-97026, MRP-L49 siRNA (m): sc-149610, MRP-L49 shRNA Plasmid (h): sc-97026-SH, MRP-L49 shRNA Plasmid (m): sc-149610-SH, MRP-L49 shRNA (h) Lentiviral Particles: sc-97026-V and MRP-L49 shRNA (m) Lentiviral Particles: sc-149610-V.

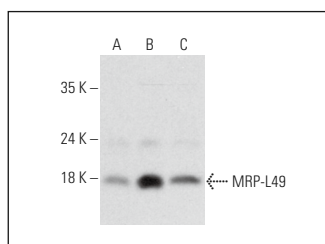
Molecular Weight of MRP-L49: 19 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, COLO 320DM cell lysate: sc-2226 or U-698-M whole cell lysate: sc-364799.

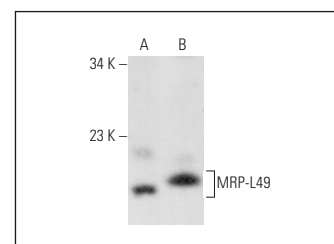
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



MRP-L49 (H-12): sc-515183. Western blot analysis of MRP-L49 expression in HeLa (A), COLO 320DM (B) and U-698-M (C) whole cell lysates.



MRP-L49 (H-12): sc-515183. Western blot analysis of MRP-L49 expression in HeLa (A) and NIH/3T3 (B) whole cell lysates.

## 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](http://www.scbt.com) for detailed protocols and support products.