

# MRP-L24 (B-8): sc-393857

## 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-L24 (mitochondrial ribosomal protein L24), is a 216 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-L24 contains a KOW (Kyprides, Ouzounis, Woese) domain, which is a motif that is commonly found in a variety of ribosomal proteins. The gene encoding MRP-L24 maps to human chromosome 1, which spans about 260 million base pairs and comprises nearly 8% of the human genome.

## REFERENCES

1. Kyprides, N.C., et al. 1996. KOW: a novel motif linking a bacterial transcription factor with ribosomal proteins. *Trends Biochem. Sci.* 21: 425-426.
2. 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.
3. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. *Nat. Genet.* 36: 40-45.
4. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
5. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 611836. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: MRPL24 (human) mapping to 1q23.1; Mrpl24 (mouse) mapping to 3 F1.

## SOURCE

MRP-L24 (B-8) is a mouse monoclonal antibody raised against amino acids 4-216 mapping at the C-terminus of MRP-L24 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.

MRP-L24 (B-8) is available conjugated to agarose (sc-393857 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393857 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393857 PE), fluorescein (sc-393857 FITC), Alexa Fluor® 488 (sc-393857 AF488), Alexa Fluor® 546 (sc-393857 AF546), Alexa Fluor® 594 (sc-393857 AF594) or Alexa Fluor® 647 (sc-393857 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393857 AF680) or Alexa Fluor® 790 (sc-393857 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## RESEARCH USE

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

## APPLICATIONS

MRP-L24 (B-8) is recommended for detection of MRP-L24 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-L24 siRNA (h): sc-78575, MRP-L24 siRNA (m): sc-106244, MRP-L24 shRNA Plasmid (h): sc-78575-SH, MRP-L24 shRNA Plasmid (m): sc-106244-SH, MRP-L24 shRNA (h) Lentiviral Particles: sc-78575-V and MRP-L24 shRNA (m) Lentiviral Particles: sc-106244-V.

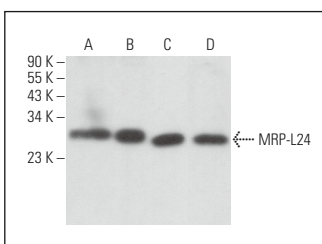
Molecular Weight of MRP-L24: 25 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or human heart extract: sc-363763.

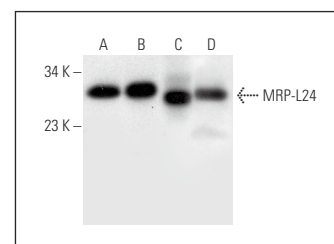
## RECOMMENDED SUPPORT REAGENTS

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-L24 (B-8): sc-393857. Western blot analysis of MRP-L24 expression in HT-1080 (A), A2058 (B), C2C12 (C) and A-10 (D) whole cell lysates.



MRP-L24 (B-8): sc-393857. Western blot analysis of MRP-L24 expression in HeLa (A) and Hep G2 (B) whole cell lysates and mouse heart (C) and human heart (D) tissue extracts.

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

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA