# SANTA CRUZ BIOTECHNOLOGY, INC.

# MRP-L11 (P-12): sc-109559



## BACKGROUND

Mitochondria have their own translation machinery for production of 13 proteins that are required for oxidative phosphorylation. MRP-L11 (39S ribosomal protein L11, mitochondrial), also known as CGI-113, is a 192 amino acid protein that is a component of the large ribosomal subunit of the mitochondria. MRP-L11 is one of the 70 protein components of mitochondrial ribosomes that are encoded by the nuclear genome. The gene encoding MRP-L11 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

- 1. Lai, C.H., Chou, C.Y., Ch'ang, L.Y., Liu, C.S. and Lin, W. 2000. Identification of novel human genes evolutionarily conserved in Caenorhabditis elegans by comparative proteomics. Genome Res. 10: 703-713.
- 2. Kenmochi, N., Suzuki, T., Uechi, T., Magoori, M., Kuniba, M., Higa, S., Watanabe, K. and Tanaka, T. 2001. The human mitochondrial ribosomal protein genes: mapping of 54 genes to the chromosomes and implications for human disorders. Genomics 77: 65-70.
- 3. Suzuki, T., Terasaki, M., Takemoto-Hori, C., Hanada, T., Ueda, T., Wada, A. and Watanabe, K. 2001. Structural compensation for the deficit of rRNA with proteins in the mammalian mitochondrial ribosome. Systematic analysis of protein components of the large ribosomal subunit from mammalian mitochondria. J. Biol. Chem. 276: 21724-21736.
- 4. Handa, H., Kobayashi-Uehara, A. and Murayama, S. 2001. Characterization of a wheat cDNA encoding mitochondrial ribosomal protein L11: gualitative and quantitative tissue-specific differences in its expression. Mol. Genet. Genomics 265: 569-575.
- 5. Lyng, H., Brøvig, R.S., Svendsrud, D.H., Holm, R., Kaalhus, O., Knutstad, K., Oksefjell, H., Sundfør, K., Kristensen, G.B. and Stokke, T. 2006. Gene expressions and copy numbers associated with metastatic phenotypes of uterine cervical cancer. BMC Genomics 7: 268.
- 6. Pesaresi, P., Masiero, S., Eubel, H., Braun, H.P., Bhushan, S., Glaser, E., Salamini, F. and Leister, D. 2006. Nuclear photosynthetic gene expression is synergistically modulated by rates of protein synthesis in chloroplasts and mitochondria. Plant Cell 18: 970-991.
- 7. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 611826: World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 8. Sugimoto, T., Seki, N., Shimizu, S., Kikkawa, N., Tsukada, J., Shimada, H., Sasaki, K., Hanazawa, T., Okamoto, Y. and Hata, A. 2009. The galanin signaling cascade is a candidate pathway regulating oncogenesis in human squamous cell carcinoma. Genes Chromosomes Cancer 48: 132-142.

## CHROMOSOMAL LOCATION

Genetic locus: MRPL11 (human) mapping to 11q13.2; Mrpl11 (mouse) mapping to 19 A.

## SOURCE

MRP-L11 (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MRP-L11 of human origin.

## PRODUCT

Each vial contains 200 µg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109559 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

MRP-L11 (P-12) is recommended for detection of MRP-L11 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 family members.

MRP-L11 (P-12) is also recommended for detection of MRP-L11 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MRP-L11 siRNA (h): sc-96583, MRP-L11 siRNA (m): sc-149579, MRP-L11 shRNA Plasmid (h): sc-96583-SH, MRP-L11 shRNA Plasmid (m): sc-149579-SH, MRP-L11 shRNA (h) Lentiviral Particles: sc-96583-V and MRP-L11 shRNA (m) Lentiviral Particles: sc-149579-V.

Molecular Weight of MRP-L11: 21 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<sup>™</sup> 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<sup>™</sup> 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.