## SANTA CRUZ BIOTECHNOLOGY, INC.

# MRP-L36 (E-13): sc-107248



# 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-L36 (mitochondrial ribosomal protein L36), also known as BRIP1 (BRCA1-interacting protein 1), is a 103 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. Overexpression of MRP-L36 seems to increase efficiency of mitochondrial translation. Association between LETM1 and MRP-L36 contributes to the regulation of mitochondrial ATP production and necrotic cell death. The gene encoding MRP-L36 maps to human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome.

## REFERENCES

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- 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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- Zhang, Z., et al. 2003. Identification and characterization of over 100 mitochondrial ribosomal protein pseudogenes in the human genome. Genomics 81): 468-480.
- Williams, E.H., et al. 2004. MrpL36p, a highly diverged L31 ribosomal protein homolog with additional functional domains in *Saccharomyces cere*visiae mitochondria. Genetics 167: 65-75.
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- Piao, L., et al. 2009. Association of LETM1 and MRPL36 contributes to the regulation of mitochondrial ATP production and necrotic cell death. Cancer Res. 69: 3397-3404.
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## CHROMOSOMAL LOCATION

Genetic locus: Mrpl36 (mouse) mapping to 13 C1.

## SOURCE

MRP-L36 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MRP-L36 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-107248 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

MRP-L36 (E-13) is recommended for detection of MRP-L36 of mouse and rat 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-L family members.

Suitable for use as control antibody for MRP-L36 siRNA (m): sc-149598, MRP-L36 shRNA Plasmid (m): sc-149598-SH and MRP-L36 shRNA (m) Lentiviral Particles: sc-149598-V.

Molecular Weight of MRP-L36: 12 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) Immunofluo-rescence: use 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.