

# MRP-S16 (S-12): sc-107012

## 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-S16 (mitochondrial ribosomal protein S16) is a 137 amino acid protein that localizes to the mitochondrion, where it exists as a component of the 28S ribosomal subunit and works in conjunction with other MRPs to mediate protein synthesis. Defects in the gene encoding MRP-S16 are the cause of COXPD2 (combined phosphorylation deficiency type 2), a disease characterized by severe multi-system failure and symptoms such as fatal neonatal metabolic acidosis with agenesis of the corpus callosum.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: MRPS16 (human) mapping to 10q22.2; Mrps16 (mouse) mapping to 14 A3.

## SOURCE

MRP-S16 (S-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MRP-S16 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-107012 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MRP-S16 (S-12) is recommended for detection of MRP-S16 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).

MRP-S16 (S-12) is also recommended for detection of MRP-S16 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MRP-S16 siRNA (h): sc-90541, MRP-S16 siRNA (m): sc-149618, MRP-S16 shRNA Plasmid (h): sc-90541-SH, MRP-S16 shRNA Plasmid (m): sc-149618-SH, MRP-S16 shRNA (h) Lentiviral Particles: sc-90541-V and MRP-S16 shRNA (m) Lentiviral Particles: sc-149618-V.

Molecular Weight of MRP-S16: 15 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.

## 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) or our catalog for detailed protocols and support products.