

# MRP-S10 (S-12): sc-132352

## BACKGROUND

MRP-S10 (mitochondrial ribosomal protein S10), also known as PNAS-122, is a 201 amino acid protein encoded by the human gene MRPS10. MRP-S10 is a component of the mitochondrial ribosome small subunit (28S) which comprises a 12S rRNA and about 30 distinct proteins. The human mitochondrial ribosome has 29 distinct proteins in the small subunit. Fourteen of this group of proteins are homologs of the *Escherichia coli* 30 S ribosomal proteins S2, S5, S6, S7, S9, S10, S11, S12, S14, S15, S16, S17, S18 and S21. These proteins also have homologs in *Drosophila melanogaster*, *Caenorhabditis elegans* and *Saccharomyces cerevisiae* mitochondrial ribosomes.

## REFERENCES

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2. Koc, E.C., Burkhart, W., Blackburn, K., Moseley, A., Koc, H. and Spremulli, L.L. 2000. A proteomics approach to the identification of mammalian mitochondrial small subunit ribosomal proteins. *J. Biol. Chem.* 275: 32585-32591.
3. Figueroa, P., Holuigue, L., Araya, A. and Jordana, X. 2000. The nuclear-encoded SDH2-RPS14 precursor is proteolytically processed between SDH2 and RPS14 to generate maize mitochondrial RPS14. *Biochem. Biophys. Res. Commun.* 271: 380-385.
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5. 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.
6. Zhang, Z. and Gerstein, M. 2003. Identification and characterization of over 100 mitochondrial ribosomal protein pseudogenes in the human genome. *Genomics* 81: 468-480.

## CHROMOSOMAL LOCATION

Genetic locus: MRPS10 (human) mapping to 6p21.1; Mrps10 (mouse) mapping to 17 C.

## SOURCE

MRP-S10 (S-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MRP-S10 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-132352 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MRP-S10 (S-12) is recommended for detection of MRP-S10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with other MRP-S family members.

MRP-S10 (S-12) is also recommended for detection of MRP-S10 in additional species, including bovine and porcine.

Suitable for use as control antibody for MRP-S10 siRNA (h): sc-95202, MRP-S10 siRNA (m): sc-149616, MRP-S10 shRNA Plasmid (h): sc-95202-SH, MRP-S10 shRNA Plasmid (m): sc-149616-SH, MRP-S10 shRNA (h) Lentiviral Particles: sc-95202-V and MRP-S10 shRNA (m) Lentiviral Particles: sc-149616-V.

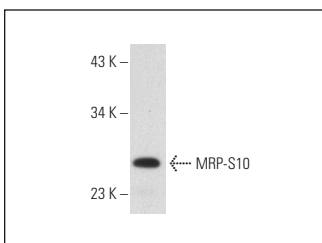
Molecular Weight of MRP-S10: 23 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



MRP-S10 (S-12): sc-132352. Western blot analysis of MRP-S10 expression in Jurkat nuclear extract.

## 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.