

MRP-S6 (E-20): sc-67919

BACKGROUND

Mitochondrial ribosomes are made of a 28S subunit and a larger 39S subunit. These ribosomes have an approximate composition of 75% protein to rRNA as compared to prokaryotic ribosomes, where reverse proportions are found. MRP-S6 (Mitochondrial 28S ribosomal protein S6) is a mitochondrial ribosomal protein that belongs to the ribosomal protein S6P family. MRP-S6 is a component of the mitochondrial ribosome small subunit (28S) which is comprised of a 12S rRNA and almost 30 other distinct proteins. Half of this group of proteins are homologs to constituents of the 30S ribosome found in *Escherichia coli*. All of these proteins have homologs in most eukaryotic mitochondrial ribosomes.

REFERENCES

1. Spirin, A.S., Agafonov, D.E., Kolb, V.A. and Kommer, A. 1997. Topography of ribosomal proteins: reconsideration of protein map of small ribosomal subunit. *Biokhimiia* 61: 1928-1930.
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.
4. Cavdar Koc, E., Burkhart, W., Blackburn, K., Moseley, A. and Spremulli, L.L. 2001. The small subunit of the mammalian mitochondrial ribosome. Identification of the full complement of ribosomal proteins present. *J. Biol. Chem.* 276: 19363-19374.
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: MRPS6 (human) mapping to 21q22.11; Mrps6 (mouse) mapping to 16 C4.

SOURCE

MRP-S6 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MRP-S6 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-67919 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MRP-S6 (E-20) is recommended for detection of Mitochondrial 28S ribosomal protein S6 of mouse 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-S6 (E-20) is also recommended for detection of Mitochondrial 28S ribosomal protein S6 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for MRP-S6 siRNA (h): sc-62639, MRP-S6 siRNA (m): sc-62640, MRP-S6 shRNA Plasmid (h): sc-62639-SH, MRP-S6 shRNA Plasmid (m): sc-62640-SH, MRP-S6 shRNA (h) Lentiviral Particles: sc-62639-V and MRP-S6 shRNA (m) Lentiviral Particles: sc-62640-V.

Molecular Weight of MRP-S6: 14 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 or our catalog for detailed protocols and support products.



Try **MRP-S6 (E-8): sc-390597**, our highly recommended monoclonal alternative to MRP-S6 (E-20).