

# MRP-S28 (E-19): sc-87312

## BACKGROUND

Mammalian mitochondrial ribosomes (mitoribosomes) are responsible for protein synthesis within the mitochondrion. The mitoribosomes are composed of a 4:1 ratio of protein to RNA, with the proteins forming two subunits, the 28S subunit and the 39S subunit. Across species, the proteins that make up the mitoribosome subunits vary greatly in sequence, preventing easy recognition by sequence homology. MRP-S28 (mitochondrial 28S ribosomal protein S28), also known as S28mt or MRP-S35, is a 187 amino acid mitochondrial ribosomal protein. Localized to mitochondria, MRP-S28 is present in the 28S subunit of the mitoribosomes.

## REFERENCES

1. Goldschmidt-Reisin, S., et al. 1998. Mammalian mitochondrial ribosomal proteins. N-terminal amino acid sequencing, characterization, and identification of corresponding gene sequences. *J. Biol. Chem.* 273: 34828-34836.
2. Hattori, A., et al. 2000. Characterization of long cDNA clones from human adult spleen. *DNA Res.* 7: 357-366.
3. Koc, E.C., et al. 2000. A proteomics approach to the identification of mammalian mitochondrial small subunit ribosomal proteins. *J. Biol. Chem.* 275: 32585-32591.
4. Cavdar Koc, E., et al. 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., 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.
6. Scanlan, M.J., et al. 2001. Humoral immunity to human breast cancer: antigen definition and quantitative analysis of mRNA expression. *Cancer Immun.* 1: 4.

## CHROMOSOMAL LOCATION

Genetic locus: MRPS28 (human) mapping to 8q21.13; Mrps28 (mouse) mapping to 3 A1.

## SOURCE

MRP-S28 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MRP-S28 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-87312 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

MRP-S28 (E-19) is recommended for detection of MRP-S28 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).

MRP-S28 (E-19) is also recommended for detection of MRP-S28 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for MRP-S28 siRNA (h): sc-77576, MRP-S28 siRNA (m): sc-149628, MRP-S28 shRNA Plasmid (h): sc-77576-SH, MRP-S28 shRNA Plasmid (m): sc-149628-SH, MRP-S28 shRNA (h) Lentiviral Particles: sc-77576-V and MRP-S28 shRNA (m) Lentiviral Particles: sc-149628-V.

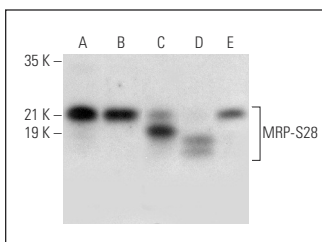
Molecular Weight of MRP-S28: 21 kDa.

Positive Controls: SK-BR-3 cell lysate: sc-2218, COLO 320DM cell lysate: sc-2226 or HeLa whole cell lysate: sc-2200.

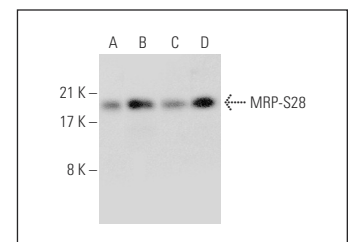
## RECOMMENDED SECONDARY REAGENTS

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-S28 (E-19): sc-87312. Western blot analysis of MRP-S28 expression in COLO 320DM (A), HeLa (B), Hep G2 (C), RT-4 (D) and U-251-MG (E) whole cell lysates.



MRP-S28 (E-19): sc-87312. Western blot analysis of MRP-S28 expression in HeLa (A), Hep G2 (B), Jurkat (C) and K-562 (D) whole cell lysates.

## 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.