

MRP-S28 (F-9): sc-398572

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.

CHROMOSOMAL LOCATION

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

SOURCE

MRP-S28 (F-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 78-96 within an internal region of MRP-S28 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MRP-S28 (F-9) is available conjugated to agarose (sc-398572 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398572 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398572 PE), fluorescein (sc-398572 FITC), Alexa Fluor® 488 (sc-398572 AF488), Alexa Fluor® 546 (sc-398572 AF546), Alexa Fluor® 594 (sc-398572 AF594) or Alexa Fluor® 647 (sc-398572 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398572 AF680) or Alexa Fluor® 790 (sc-398572 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398572 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

MRP-S28 (F-9) is recommended for detection of MRP-S28 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

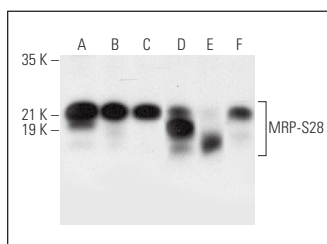
Molecular Weight of MRP-S28: 21 kDa.

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

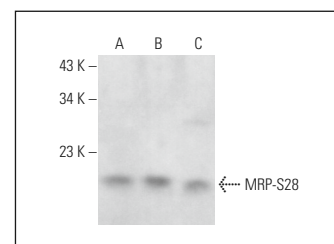
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



MRP-S28 (F-9): sc-398572. Western blot analysis of MRP-S28 expression in SK-BR-3 (A), COLO 320DM (B), HeLa (C), Hep G2 (D), RT-4 (E) and U-251-MG (F) whole cell lysates.



MRP-S28 (F-9): sc-398572. Western blot analysis of MRP-S28 expression in Jurkat (A), K-562 (B) and F9 (C) whole cell lysates.

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.