SANTA CRUZ BIOTECHNOLOGY, INC.

MRP-L24 (K-19): sc-103629

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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-L24 (mitochondrial ribosomal protein L24), is a 216 amino acid protein that localizes to the mitochondrion, where it exists as a component of the 39S ribosomal subunit and works in conjunction with other MRPs to mediate protein synthesis. MRP-L24 contains a KOW (Kyprides, Ouzounis, Woese) domain, which is a motif that is commonly found in a variety of ribosomal proteins. The gene encoding MRP-L24 maps to human chromosome 1, which spans about 260 million base pairs and comprises nearly 8% of the human genome.

REFERENCES

1. Kyrpides, N.C., et al. 1996. KOW: a novel motif linking a bacterial transcription factor with ribosomal proteins. Trends Biochem. Sci. 21: 425-426.
2. 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.
3. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. Nat. Genet. 36: 40-45.
4. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.
5. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 611836. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: MRPL24 (human) mapping to 1q22; Mrpl24 (mouse) mapping to 3 F1.

SOURCE

MRP-L24 (K-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MRP-L24 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-103629 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

MRP-L24 (K-19) is recommended for detection of MRP-L24 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); non cross-reactive with other MRP-L family members.

MRP-L24 (K-19) is also recommended for detection of MRP-L24 in additional species, including bovine.

Suitable for use as control antibody for MRP-L24 siRNA (h): sc-78575, MRP-L24 siRNA (m): sc-106244, MRP-L24 shRNA Plasmid (h): sc-78575-SH, MRP-L24 shRNA Plasmid (m): sc-106244-SH, MRP-L24 shRNA (h) Lentiviral Particles: sc-78575-V and MRP-L24 shRNA (m) Lentiviral Particles: sc-106244-V.

Molecular Weight of MRP-L24: 25 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.

RESEARCH USE

For research use only, not for use in diagnostic procedures.