

Ribosomal Protein L23a (C-12): sc-169152

BACKGROUND

Ribosomes, the organelles that catalyze protein synthesis, are composed of a small subunit (40S) and a large subunit (60S) that consist of over 80 distinct ribosomal proteins. Mammalian ribosomal proteins are encoded by multigene families that contain processed pseudogenes and one functional intron-containing gene within their coding regions. Ribosomal Protein L23a, also known as RPL23A or MDA20, is a 156 amino acid protein that exists as part of the 60S ribosomal subunit and is expressed at high levels in heart, pancreas and skeletal muscle. Localized to the cytoplasm, Ribosomal Protein L23a is thought to be involved in the mediation of growth inhibition, possibly functioning as a target molecule for interferons (IFNs). Like most ribosomal proteins, Ribosomal Protein L23a exists as multiple processed pseudogenes that are scattered throughout the genome.

REFERENCES

1. Wool, I.G., et al. 1995. Structure and evolution of mammalian ribosomal proteins. *Biochem. Cell Biol.* 73: 933-947.
2. Fan, W., et al. 1997. Cloning, sequencing, gene organization, and localization of the human ribosomal protein RPL23A gene. *Genomics* 46: 234-239.
3. Jiang, H., et al. 1997. Suppression of human Ribosomal Protein L23a expression during cell growth inhibition by interferon- β . *Oncogene* 14: 473-480.
4. Jäkel, S. and Görlich, D. 1998. Importin β , transportin, RanBP5 and RanBP7 mediate nuclear import of ribosomal proteins in mammalian cells. *EMBO J.* 17: 4491-4502.
5. Uechi, T., et al. 2001. A complete map of the human ribosomal protein genes: assignment of 80 genes to the cytogenetic map and implications for human disorders. *Genomics* 72: 223-230.
6. Pool, M.R., et al. 2002. Distinct modes of signal recognition particle interaction with the ribosome. *Science* 297: 1345-1348.
7. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602326. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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CHROMOSOMAL LOCATION

Genetic locus: RPL23A (human) mapping to 17q11.2; Rpl23a (mouse) mapping to 11 B5.

SOURCE

Ribosomal Protein L23a (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Ribosomal Protein L23a of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-169152 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ribosomal Protein L23a (C-12) is recommended for detection of Ribosomal Protein L23a 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).

Ribosomal Protein L23a (C-12) is also recommended for detection of Ribosomal Protein L23a in additional species, including canine.

Suitable for use as control antibody for Ribosomal Protein L23a siRNA (h): sc-94170, Ribosomal Protein L23a siRNA (m): sc-152904, Ribosomal Protein L23a shRNA Plasmid (h): sc-94170-SH, Ribosomal Protein L23a shRNA Plasmid (m): sc-152904-SH, Ribosomal Protein L23a shRNA (h) Lentiviral Particles: sc-94170-V and Ribosomal Protein L23a shRNA (m) Lentiviral Particles: sc-152904-V.

Molecular Weight of Ribosomal Protein L23a: 18 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or mouse liver extract: sc-2256.

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.

PROTOCOLS

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