SANTA CRUZ BIOTECHNOLOGY, INC.

Ribosomal Protein L10a (JK-16): sc-100827

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 multi-gene families that contain processed pseudogenes and one functional intron-containing gene within their coding regions. Ribosomal Protein L10a, also known as RPL10A, NEDD6 (neural precursor cell expressed, developmentally downregulated 6) or CSA-19, is a 217 amino acid protein that is a component of the 60S subunit. Localized to the cytoplasm and expressed ubiquitously in malignant cells and normal tissues, Ribosomal Protein L10a belongs to the L1P family of ribosomal proteins and functions in protein synthesis. The expression of Ribosomal Protein L10a is downregulated by the immunosuppressive drug Cyclosporin A (CSA). Like most ribosomal proteins, Ribosomal Protein L10a exists as multiple processed pseudogenes that are scattered throughout the genome.

CHROMOSOMAL LOCATION

Genetic locus: RPL10A (human) mapping to 6p21.31; Rpl10a (mouse) mapping to 17 A3.3.

SOURCE

Ribosomal Protein L10a (JK-16) is a mouse monoclonal antibody raised against recombinant Ribosomal Protein L10a of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

Ribosomal Protein L10a (JK-16) is recommended for detection of Ribosomal Protein L10a 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Ribosomal Protein L10a siRNA (h): sc-95362, Ribosomal protein L10A siRNA (m): sc-152892, Ribosomal Protein L10a shRNA Plasmid (h): sc-95362-SH, Ribosomal protein L10A shRNA Plasmid (m): sc-152892-SH, Ribosomal Protein L10a shRNA (h) Lentiviral Particles: sc-95362-V and Ribosomal protein L10A shRNA (m) Lentiviral Particles: sc-152892-V.

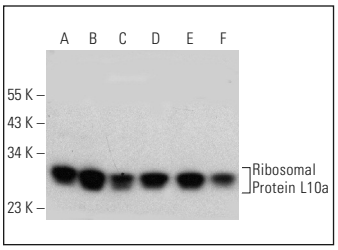
Molecular Weight of Ribosomal Protein L10a: 25 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or Hep G2 cell lysate: sc-2227.

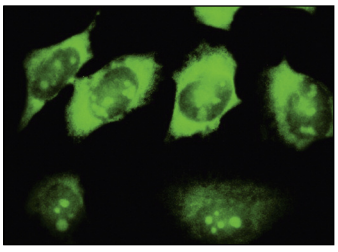
RECOMMENDED SUPPORT REAGENTS

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, 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 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



Ribosomal Protein L10a (JK-16): sc-100827. Western blot analysis of Ribosomal Protein L10a expression in HeLa (**A**), Jurkat (**B**), Hep G2 (**C**), NIH/3T3 (**D**), RAW 264.7 (**E**) and A-10 (**F**) whole cell lysates.



Ribosomal Protein L10a (JK-16): sc-100827. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Fetaud-Lapierre, V., et al. 2010. Proteomic analysis of heat shock-induced protection in acute pancreatitis. J. Proteome Res. 9: 5929-5942.
2. Baird, N.L., et al. 2012. Arenavirus infection induces discrete cytosolic structures for RNA replication. J. Virol. 86: 11301-11310.
3. Xue, S., et al. 2015. RNA regulons in Hox 5' UTRs confer ribosome specificity to gene regulation. Nature 517: 33-38.
4. Loayza-Puch, F., et al. 2016. Tumour-specific proline vulnerability uncovered by differential ribosome codon reading. Nature 530: 490-494.

RESEARCH USE

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

PROTOCOLS

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