SANTA CRUZ BIOTECHNOLOGY, INC.

RSL24D1 (3H2): sc-100840

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 multigene families that contain processed pseudogenes and one functional intron-containing gene within their coding regions. RSL24D1, also known as L30, RPL24L or HRP-L30-iso, is a 163 amino acid nuclear protein that shares a low level of similarity with Ribosomal Protein L24 (MRP-L24). Like other ribosomal proteins, RSL24D1 is involved in the biogenesis of the large 60S subunit and, during biogenesis, it is associated with nuclear and cytoplasmic pre-60S particles where it mediates proper protein docking. Once biogenesis is complete, RSL24D1 dissociates from the particles and is thought to be exchanged for Ribosomal Protein L24.

REFERENCES

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2. Kenmochi, N., Kawaguchi, T., Rozen, S., Davis, E., Goodman, N., Hudson, T.J., Tanaka, T. and Page, D.C. 1998. A map of 75 human ribosomal protein genes. Genome Res. 8: 509-523.
3. Uechi, T., Tanaka, T. and Kenmochi, N. 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.
4. Yoshihama, M., Uechi, T., Asakawa, S., Kawasaki, K., Kato, S., Higa, S., Maeda, N., Minoshima, S., Tanaka, T., Shimizu, N. and Kenmochi, N. 2002. The human ribosomal protein genes: sequencing and comparative analysis of 73 genes. Genome Res. 12: 379-390.
5. Odintsova, T.I., Müller, E.C., Ivanov, A.V., Egorov, T.A., Bienert, R., Vladimirov, S.N., Kostka, S., Otto, A., Wittmann-Liebold, B. and Karpova, G.G. 2003. Characterization and analysis of posttranslational modifications of the human large cytoplasmic ribosomal subunit proteins by mass spectrometry and Edman sequencing. J. Protein Chem. 22: 249-258.

CHROMOSOMAL LOCATION

Genetic locus: RSL24D1 (human) mapping to 15q21.3; Rsl24d1 (mouse) mapping to 9 D.

SOURCE

RSL24D1 (3H2) is a mouse monoclonal antibody raised against recombinant RSL24D1 of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 kappa light chain in 1.0 ml 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

RSL24D1 (3H2) is recommended for detection of RSL24D1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for RSL24D1 siRNA (h): sc-90184, RSL24D1 siRNA (m): sc-141489, RSL24D1 shRNA Plasmid (h): sc-90184-SH, RSL24D1 shRNA Plasmid (m): sc-141489-SH, RSL24D1 shRNA (h) Lentiviral Particles: sc-90184-V and RSL24D1 shRNA (m) Lentiviral Particles: sc-141489-V.

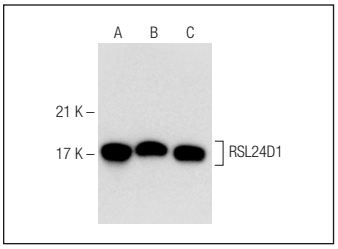
Molecular Weight of RSL24D1: 18 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, MOLT-4 cell lysate: sc-2233 or Hep G2 cell lysate: sc-2227.

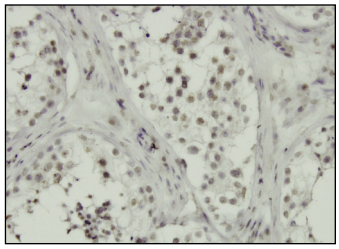
RECOMMENDED SUPPORT REAGENTS

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, 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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



RSL24D1 (3H2): sc-100840. Western blot analysis of RSL24D1 expression in Hep G2 (**A**), HL-60 (**B**) and MOLT-4 (**C**) whole cell lysates.



RSL24D1 (3H2): sc-100840. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human testis tissue showing nuclear localization.

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.