SANTA CRUZ BIOTECHNOLOGY, INC.

Ribosomal Protein L36aL siRNA (m): sc-152918

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 L36aL, also known as RPL36AL, is a 106 amino acid protein that localizes to the cytoplasm and belongs to the L44E (L36AE) family of ribosomal proteins. Expressed ubiquitously, Ribosomal Protein L36aL may play a role in protein synthesis and, like most ribosomal proteins, exists as multiple processed pseudogenes that are scattered throughout the genome.

REFERENCES

1. Davies, M.S., Henney, A., Ward, W.H. and Craig, R.K. 1986. Characterisation of an mRNA encoding a human ribosomal protein homologous to the yeast L44 ribosomal protein. Gene 45: 183-191.
2. Ou, J.H., Yen, T.S., Wang, Y.F., Kam, W.K. and Rutter, W.J. 1987. Cloning and characterization of a human ribosomal protein gene with enhanced expression in fetal and neoplastic cells. Nucleic Acids Res. 15: 8919-8934.
3. Gallagher, M.J., Chan, Y.L., Lin, A. and Wool, I.G. 1988. Primary structure of rat ribosomal protein L36a. DNA 7: 269-273.
4. Feo, S., Davies, B. and Fried, M. 1992. The mapping of seven intron-containing ribosomal protein genes shows they are unlinked in the human genome. Genomics 13: 201-207.
5. Reddy, T.R., Suhasini, M., Rappaport, J., Looney, D.J., Kraus, G. and Wong-Staal, F. 1995. Molecular cloning and characterization of a TAR-binding nuclear factor from T cells. AIDS Res. Hum. Retroviruses 11: 663-669.
6. Wool, I.G., Chan, Y.L. and Glück, A. 1995. Structure and evolution of mammalian ribosomal proteins. Biochem. Cell Biol. 73: 933-947.
7. 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.
8. Uechi, T., Maeda, N., Tanaka, T. and Kenmochi, N. 2002. Functional second genes generated by retrotransposition of the X-linked ribosomal protein genes. Nucleic Acids Res. 30: 5369-5375.
9. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 180469. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: Rpl36al (mouse) mapping to 12 C2.

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.

PRODUCT

Ribosomal Protein L36aL siRNA (m) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Ribosomal Protein L36aL shRNA Plasmid (m): sc-152918-SH and Ribosomal Protein L36aL shRNA (m) Lentiviral Particles: sc-152918-V as alternate gene silencing products.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

Ribosomal Protein L36aL siRNA (m) is recommended for the inhibition of Ribosomal Protein L36aL expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.