SANTA CRUZ BIOTECHNOLOGY, INC.

Ribosomal Protein L26L1 siRNA (h): sc-91675

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 L26 (also known as RPL26) and Ribosomal Protein L26L1 (also known as RPL26L1) are 145 amino acid proteins that belong to the ribosomal protein family and may play a role in protein synthesis. Like most ribosomal proteins, Ribosomal Protein L26 exists as multiple processed pseudogenes that are scattered throughout the genome.

REFERENCES

1. Zaman, G.J. 1993. Sequence of a cDNA encoding human ribosomal protein L26 and of a cDNA probably encoding human ribosomal protein L6. Nucleic Acids Res. 21: 1673.
2. Wool, I.G., Chan, Y.L. and Glück, A. 1995. Structure and evolution of mammalian ribosomal proteins. Biochem. Cell Biol. 73: 933-947.
3. 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.
4. 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.
5. 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.
6. Kapp, L.D. and Lorsch, J.R. 2004. The molecular mechanics of eukaryotic translation. Annu. Rev. Biochem. 73: 657-704.
7. Andersen, J.S., Lam, Y.W., Leung, A.K., Ong, S.E., Lyon, C.E., Lamond, A.I. and Mann, M. 2005. Nucleolar proteome dynamics. Nature 433: 77-83.
8. Ofir-Rosenfeld, Y., Boggs, K., Michael, D., Kastan, M.B. and Oren, M. 2008. MDM2 regulates p53 mRNA translation through inhibitory interactions with ribosomal protein L26. Mol. Cell. 32: 180-189.
9. Robledo, S., Idol, R.A., Crimmins, D.L., Ladenson, J.H., Mason, P.J. and Bessler, M. 2008. The role of human ribosomal proteins in the maturation of rRNA and ribosome production. RNA 14: 1918-1929.

CHROMOSOMAL LOCATION

Genetic locus: RPL26L1 (human) mapping to 5q35.1.

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 L26L1 siRNA (h) 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 L26L1 shRNA Plasmid (h): sc-91675-SH and Ribosomal Protein L26L1 shRNA (h) Lentiviral Particles: sc-91675-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 L26L1 siRNA (h) is recommended for the inhibition of Ribosomal Protein L26L1 expression in human 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Ribosomal Protein L26L1 gene expression knockdown using RT-PCR Primer: Ribosomal Protein L26L1 (h)-PR: sc-91675-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.