



Ribosomal Protein S25 siRNA (m): sc-152944

BACKGROUND

Ribosomes, the organelles that catalyze protein synthesis, are composed of small subunit (40S) and a large subunit (60S), which, combined, 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 S25 (RPS25) is a 125 amino acid component of the 40S subunit that belongs to the Ribosomal Protein S25E family. Ribosomal Protein S25 localizes to the cell nucleus, nucleolus and cytoplasm. Like most ribosomal proteins, Ribosomal Protein S25 exists as multiple processed pseudogenes that are scattered throughout the genome.

REFERENCES

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2. Li, M.L., et al. 1991. Cloning and sequencing a cDNA encoding human Ribosomal Protein S25. Gene 107: 329-333.
3. Chan, Y.L. and Wool, I.G. 1992. The primary structure of rat Ribosomal Protein S25. Biochem. Biophys. Res. Commun. 186: 1688-1693.
4. Li, M. and Center, M.S. 1992. Regulation of Ribosomal Protein S25 in HL-60 cells isolated for resistance to adriamycin. FEBS Lett. 298: 142-144.
5. Miwa, T., et al. 1993. Fifty sequenced-tagged sites on human chromosome 11. Genomics 17: 211-214.
6. Imai, T., et al. 1994. Assignment of the human Ribosomal Protein S25 gene (RPS25) to chromosome 11q23.3 by sequence analysis of the marker D11S456. Genomics 20: 142-143.
7. Kenmochi, N., et al. 1998. A map of 75 human ribosomal protein genes. Genome Res. 8: 509-523.

CHROMOSOMAL LOCATION

Genetic locus: Rps25 (mouse) mapping to 9 A5.2.

PRODUCT

Ribosomal Protein S25 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Ribosomal Protein S25 shRNA Plasmid (m): sc-152944-SH and Ribosomal Protein S25 shRNA (m) Lentiviral Particles: sc-152944-V as alternate gene silencing products.

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.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

Ribosomal Protein S25 siRNA (m) is recommended for the inhibition of Ribosomal Protein S25 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 μ M in 66 μ l. 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 S25 gene expression knockdown using RT-PCR Primer: Ribosomal Protein S25 (h)-PR: sc-96512-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.