



Ribosomal Protein L32 siRNA (h): sc-78378

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 L32, also known as RPL32 or PP9932, is a 132 amino acid protein that localizes to the cytoplasm and functions as a component of the 60S subunit, playing a role in protein translation. RPL32 belongs to the Ribosomal Protein L32E family of ribosomal proteins and is regulated by GABP. Like most ribosomal proteins, Ribosomal Protein L32 exists as multiple processed pseudogenes that are scattered throughout the genome.

REFERENCES

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4. Sienna, N., Larson, D.E. and Sells, B.H. 2000. Dexamethasone stimulates Ribosomal Protein L32 gene transcription in rat myoblasts. *Mol. Cell. Endocrinol.* 167: 127-137.
5. Kleene, K.C., Cataldo, L., Mastrangelo, M.A. and Tagne, J.B. 2003. Alternative patterns of transcription and translation of the Ribosomal Protein L32 mRNA in somatic and spermatogenic cells in mice. *Exp. Cell Res.* 291: 101-110.

CHROMOSOMAL LOCATION

Genetic locus: RPL32 (human) mapping to 3p25.2.

PRODUCT

Ribosomal Protein L32 siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs 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 L32 shRNA Plasmid (h): sc-78378-SH and Ribosomal Protein L32 shRNA (h) Lentiviral Particles: sc-78378-V as alternate gene silencing products.

For independent verification of Ribosomal Protein L32 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-78378A, sc-78378B and sc-78378C.

RESEARCH USE

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

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 L32 siRNA (h) is recommended for the inhibition of Ribosomal Protein L32 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 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 L32 gene expression knockdown using RT-PCR Primer: Ribosomal Protein L32 (h)-PR: sc-78378-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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