



Ribosomal Protein L36 siRNA (h): sc-97541

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 L36, also known as 60S Ribosomal protein L36, RPL36 or L36, is a 105 amino acid protein that belongs to the Ribosomal protein L36e family. A component of the 60S subunit, Ribosomal Protein L36 localized to the cytoplasm. Ribosomal Protein L36 exists as multiple processed pseudogenes that are scattered throughout the genome. In the mycoparasitic fungus, *Trichoderma hamatum*, Ribosomal Protein L36 is tightly regulated by carbon and nitrogen availability.

REFERENCES

1. Hori, N., et al. 1993. A new human ribosomal protein sequence, homologue of rat L9. *Nucleic Acids Res.* 21: 4395.
2. Mazuruk, K., et al. 1996. Structural organization and chromosomal localization of the human ribosomal protein L9 gene. *Biochim. Biophys. Acta* 1305: 151-162.
3. Kenmochi, N., et al. 1998. A map of 75 human ribosomal protein genes. *Genome Res.* 8: 509-523.
4. Fekete, C., et al. 2001. Primary structure and transcription patterns of RPL36, a ribosomal protein-encoding gene of the mycoparasitic fungus, *Trichoderma hamatum*. *Curr. Genet.* 39: 183-189.
5. Angelastro, J.M., et al. 2002. Nerve growth factor selectively regulates expression of transcripts encoding ribosomal proteins. *BMC Neurosci.* 3: 3.
6. Yoshihama, M., et al. 2002. The human ribosomal protein genes: sequencing and comparative analysis of 73 genes. *Genome Res.* 12: 379-390.
7. Aimi, T., et al. 2004. Primary structure of dihydrofolate reductase and mitochondrial ribosomal protein L36 genes from the basidiomycete *Coprinus cinereus*. *DNA Seq.* 15: 291-298.

CHROMOSOMAL LOCATION

Genetic locus: RPL36 (human) mapping to 19p13.3.

PRODUCT

Ribosomal Protein L36 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Ribosomal Protein L36 shRNA Plasmid (h): sc-97541-SH and Ribosomal Protein L36 shRNA (h) Lentiviral Particles: sc-97541-V as alternate gene silencing products.

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 L36 siRNA (h) is recommended for the inhibition of Ribosomal Protein L36 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 L36 gene expression knockdown using RT-PCR Primer: Ribosomal Protein L36 (h)-PR: sc-97541-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Shaikho, S., et al. 2016. Elevated levels of ribosomal proteins eL36 and eL42 control expression of Hsp90 in rhabdomyosarcoma. *Translation* 4: e1244395.

RESEARCH USE

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