SANTA CRUZ BIOTECHNOLOGY, INC.

Ribosomal Protein L28 siRNA (m): sc-60079

BACKGROUND

The genes encoding for mammalian ribosomal proteins comprise multigene families that consist predominantly of multiple processed pseudogenes and one functional intro-containing gene within their coding regions. Ribosomes, the organelles that catalyze protein synthesis, consist of a small 40S subunit and a large 60S subunit. 60S ribosomal protein L28 is encoded by the RPL28 gene. This protein, which is a structural constituent of the ribosome, is an RNA binding protein involved in protein biosynthesis.

REFERENCES

1. Gross, T., Nischt, R., Gatermann, K., Swida, U. and Kaufer, N.F. 1988. Primary structure of the Ribosomal Protein gene S6 from *Schizosaccharomyces pombe*. Curr. Genet. 13: 57-63.
2. Lott, J.B. and Mackie, G.A. 1988. Isolation and characterization of cloned cDNAs that code for human Ribosomal Protein S6. Gene 65: 31-39.
3. Heinze, H., Arnold, H.H., Fischer, D. and Kruppa, J. 1988. The primary structure of the human Ribosomal Protein S6 derived from a cloned cDNA. J. Biol. Chem. 263: 4139-4144.
4. Wool, I.G., Chan, Y.L., Paz, V. and Olvera, J. 1990. The primary structure of rat Ribosomal Proteins: the amino acid sequences of L27a and L28 and corrections in the sequences of S4 and S12. Biochim. Biophys. Acta 1050: 69-73.
5. 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.
6. Frigerio, J.M., Dagorn, J.C. and Iovanna, J.L. 1995. Cloning, sequencing and expression of the L5, L21, L27a, L28, S5, S9, S10 and S29 human Ribosomal Protein mRNAs. Biochim. Biophys. Acta 1262: 64-68.
7. Hernandez, V.P. and Fallon, A.M. 1999. Ribosomal Protein S6 cDNA from two *Aedes* mosquitoes encodes a carboxyl-terminal extension that resembles Histone H1 proteins. Genetica 106: 263-267.

CHROMOSOMAL LOCATION

Genetic locus: Rpl28 (mouse) mapping to 7 A1.

PRODUCT

Ribosomal Protein L28 siRNA (m) 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Ribosomal Protein L28 shRNA Plasmid (m): sc-60079-SH and Ribosomal Protein L28 shRNA (m) Lentiviral Particles: sc-60079-V as alternate gene silencing products.

For independent verification of Ribosomal Protein L28 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-60079A, sc-60079B and sc-60079C.

ESEARCH 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 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 L28 siRNA (m) is recommended for the inhibition of Ribosomal Protein L28 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.

PROTOCOLS

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