

# Produktinformation



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#### SANTA CRUZ BIOTECHNOLOGY, INC.

## Ribosomal Protein L27 siRNA (m): sc-152906



#### 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 L27, also known as RPL27, is a 136 amino acid protein belonging to the ribosomal protein L27e family exists as a component of the 60S subunit, possibly playing a role in protein translation. Like most ribosomal proteins, Ribosomal Protein L27 exists as multiple processed pseudogenes that are scattered throughout the genome. Considered a novel candidate housekeeping gene, the gene encoding Ribosomal Protein L27 maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes.

#### REFERENCES

- 1. Gallagher, R.A., et al. 1994. Cloning and nucleotide sequence of a full length cDNA encoding Ribosomal Protein L27 from human fetal kidney. Biochim. Biophys. Acta 1217: 329-332.
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- Wool, I.G., et al. 1995. Structure and evolution of mammalian ribosomal proteins. Biochem. Cell Biol. 73: 933-947.
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#### CHROMOSOMAL LOCATION

Genetic locus: RpI27 (mouse) mapping to 11 D.

#### PRODUCT

Ribosomal Protein L27 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Ribosomal Protein L27 shRNA Plasmid (m): sc-152906-SH and Ribosomal Protein L27 shRNA (m) Lentiviral Particles: sc-152906-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  $-20^{\circ}$  C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at  $-20^{\circ}$  C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330  $\mu$ l of the RNAse-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNAse-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

#### **APPLICATIONS**

Ribosomal Protein L27 siRNA (m) is recommended for the inhibition of Ribosomal Protein L27 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  $\mu$ M in 66  $\mu$ 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 L27 gene expression knockdown using RT-PCR Primer: Ribosomal Protein L27 (m)-PR: sc-152906-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

#### **RESEARCH USE**

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