SANTA CRUZ BIOTECHNOLOGY, INC.

# Ribsomal Protein L35A siRNA (h): sc-78417

## 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 L35A, whose alternative names include 60S ribosomal protein L35A, cell growth-inhibiting gene 33 protein, RPL35A, DBA5 or GIG33, is a 110 amino acid protein which belongs to the Ribosomal Protein L35Ae family. Ribosomal Protein L35A localizes to cytoplasm and is required for normal cell proliferation and survival. Biogenesis of the 60S subunit and maturation of 28S and 5.8S rRNAs is dependent on Ribosomal Protein L35A, and defects in the Ribosomal Protein L35A gene is the cause of Diamond-Blackfan anemia type 5 (DBA5). Originally believed to be mapped to chromosome 18, Ribosomal Protein L35A has been confirmed to be located at 3q29-qter of human origin.

## REFERENCES


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## CHROMOSOMAL LOCATION

Genetic locus: RPL35A (human) mapping to 3q29.

## PROTOCOLS

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

## PRODUCT

Ribsomal Protein L35A siRNA (h) is a pool of 2 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 Ribsomal Protein L35A shRNA Plasmid (h): sc-78417-SH and Ribsomal Protein L35A shRNA (h) Lentiviral Particles: sc-78417-V as alternate gene silencing products.

For independent verification of Ribsomal Protein L35A (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-78417A and sc-78417B.

## 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

Ribsomal Protein L35A siRNA (h) is recommended for the inhibition of Ribsomal Protein L35A 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 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.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Ribsomal Protein L35A gene expression knockdown using RT-PCR Primer: Ribsomal Protein L35A (h)-PR: sc-78417-PR (20 µl). 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.