SANTA CRUZ BIOTECHNOLOGY, INC.

Ribosomal Protein L6 siRNA (h): sc-40909

BACKGROUND

Mammalian ribosomal proteins are encoded by multigene families that consist of processed pseudogenes and one functional intron-containing gene within their coding regions. Ribosomal Protein L6, also known as RPL6, TAXREB107 or TXREB1, is a 288 amino acid component of the large ribosomal 60S subunit. Localized to the cytoplasm, Ribosomal Protein L6 binds specifically to domain C of the tax-responsive element (FOXN2) of human T cell leukemia virus type 1, thereby regulating tax-mediated transcriptional activation. Ribosomal Protein L6 is upregulated in multidrug resistant (MDR) gastric cancer cells and is implicated in Noonan syndrome, a congenital genetic condition characterized by impaired blood clotting, short stature and indentation of the chest. Two isoforms exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: RPL6 (human) mapping to 12q24.13.

RESEARCH USE

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

PRODUCT

Ribosomal Protein L6 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Ribosomal Protein L6 shRNA Plasmid (h): sc-40909-SH and Ribosomal Protein L6 shRNA (h) Lentiviral Particles: sc-40909-V as alternate gene silencing products.

For independent verification of Ribosomal Protein L6 (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-40909A, sc-40909B and sc-40909C.

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 L6 siRNA (h) is recommended for the inhibition of Ribosomal Protein L6 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 Ribosomal Protein L6 gene expression knockdown using RT-PCR Primer: Ribosomal Protein L6 (h)-PR: sc-40909-PR (20 µl). 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.