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SANTA CRUZ BIOTECHNOLOGY, INC.

TSR1 siRNA (m): sc-154736

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

TSR1 (pre-rRNA-processing protein TSR1 homolog) is an 804 amino acid protein that localizes to nucleolus and belongs to the BMS1/TSR1 family and TSR1 subfamily. Highly expressed in all regions of the brain, TSR1 is also found in skeletal muscle, kidney, testis, ovary, liver, heart and spinal cord, with low expression in spleen and pancreas. Essential for 40S ribosomal subunit maturation, TSR1 is encoded by a gene that maps to human chromosome 17p13.3, which comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, and is liked to predisposition of cancers of the ovary, colon, prostate gland and fallopian tubes.

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CHROMOSOMAL LOCATION

Genetic locus: Tsr1 (mouse) mapping to 11 B5.

PROTOCOLS

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

PRODUCT

TSR1 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 TSR1 shRNA Plasmid (m): sc-154736-SH and TSR1 shRNA (m) Lentiviral Particles: sc-154736-V as alternate gene silencing products.

For independent verification of TSR1 (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-154736A, sc-154736B and sc-154736C.

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

TSR1 siRNA (m) is recommended for the inhibition of TSR1 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TSR1 gene expression knockdown using RT-PCR Primer: TSR1 (m)-PR: sc-154736-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.