SANTA CRUZ BIOTECHNOLOGY, INC.

GSBS siRNA (m): sc-145792

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The Power to Question

BACKGROUND

GSBS (G-substrate), also known as C7orf16 (chromosome 7 open reading frame 16), is a 155 amino acid protein that is primarily expressed in cerebellar Purkinje cells, where it acts as a substrate for cGMP-dependent protein kinase. GSBS may also function as an inhibitor of protein phosphatase-2A and phosphatase-1. The gene encoding GSBS maps to human chromosome 7p14.3. An allele coding to this gene, T-allele, has been found to increase susceptibly to hypercholesterolemia. The gene encoding GSBS may also be involved in the initiation of long-term depression. Osteogenesis imperfecta, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome are other conditions that are linked to genes mapping to chromosome 7.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Ppp1r17 (mouse) mapping to 6 B3.

PROTOCOLS

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

PRODUCT

GSBS 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 GSBS shRNA Plasmid (m): sc-145792-SH and GSBS shRNA (m) Lentiviral Particles: sc-145792-V as alternate gene silencing products.

For independent verification of GSBS (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-145792A, sc-145792B and sc-145792C.

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

GSBS siRNA (m) is recommended for the inhibition of GSBS 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 GSBS gene expression knockdown using RT-PCR Primer: GSBS (m)-PR: sc-145792-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.