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PROSC siRNA (m): sc-152482

BACKGROUND

PROSC (proline synthetase co-transcribed bacterial homolog protein) is a 275 amino acid ubiquitously expressed enzyme that is highly conserved from bacteria to mammals. The gene encoding PROSC is cotranscribed with proline synthetase. PROSC requires the cofactor pyridoxal phosphate, the active form of vitamin B6 that acts in all transamination reactions. The PROSC gene maps to human chromosome 8, which is made up of nearly 146 million bases and encodes about 800 genes. Translocation of portions of chromosome 8 with amplifications of the c-Myc gene are found in some leukemias and lymphomas, and are typically associated with a poor prognosis. Portions of chromosome 8 have been linked to schizophrenia and bipolar disorder. Chromosome 8 is also associated with Pfeiffer syndrome, congenital hypothyroidism and Waardenburg syndrome.

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CHROMOSOMAL LOCATION

Genetic locus: Prosc (mouse) mapping to 8 A2.

RESEARCH USE

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

PROTOCOLS

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

PRODUCT

PROSC siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PROSC shRNA Plasmid (m): sc-152482-SH and PROSC shRNA (m) Lentiviral Particles: sc-152482-V as alternate gene silencing products.

For independent verification of PROSC (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-152482A and sc-152482B.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

PROSC siRNA (m) is recommended for the inhibition of PROSC 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 μ M in 66 μ 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 PROSC gene expression knockdown using RT-PCR Primer: PROSC (m)-PR: sc-152482-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.