

LYRM1 siRNA (h): sc-93187

BACKGROUND

LYRM1 (LYR motif containing 1), also known as A211C6.1, is a 122 amino acid nuclear protein that is expressed at high levels in adipose tissue. Belonging to the complex I LYR family, LYRM1 may promote cell proliferation and inhibition of apoptosis of preadipocytes. LYRM1 is encoded by a gene located on human chromosome 16p12.3, which encodes over 900 genes and approximately 90 million base pairs. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, though through the CREBBP gene which encodes a critical CREB binding protein. Signs of Rubinstein-Taybi include mental retardation and predisposition to tumor growth and white blood cell neoplasias. Crohn's disease is a gastrointestinal inflammatory condition associated with chromosome 16 through the NOD2 gene.

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CHROMOSOMAL LOCATION

Genetic locus: LYRM1 (human) mapping to 16p12.3.

PRODUCT

LYRM1 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see LYRM1 shRNA Plasmid (h): sc-93187-SH and LYRM1 shRNA (h) Lentiviral Particles: sc-93187-V as alternate gene silencing products.

For independent verification of LYRM1 (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-93187A, sc-93187B and sc-93187C.

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

LYRM1 siRNA (h) is recommended for the inhibition of LYRM1 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 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 LYRM1 gene expression knockdown using RT-PCR Primer: LYRM1 (h)-PR: sc-93187-PR (20 μ l). 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.

PROTOCOLS

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