SANTA CRUZ BIOTECHNOLOGY, INC.

SLMO2 siRNA (h): sc-76517

BACKGROUND

In *Drosophilia,* slowmo (slmo) is a mitochondrial protein that is essential for the developing nervous system. Null mutations in the slmo gene leads to reduced mobility and lethality in first-instar larvae. Belonging to the Slowmo family, SLMO2 (slowmo homolog 2), also known as C20orf45, is a 194 amino acid protein that contains one PRELI/MSF1 domain, suggesting that SLMO2 may be associated with cellular membranes. The gene encoding SLMO2 maps to human chromosome 20, which represents about 2% of human DNA and consists of approximately 600 genes. Chromosome 20 contains a region with numerous genes expressed in the epididymis which are thought important for seminal production and some viewed as potential targets for male contraception. The PRNP gene encoding the prion protein associated with spongiform encephalopathies, like Creutzfeldt-Jakob disease, is found on chromosome 20. Amyotrophic lateral sclerosis, spinal muscular atrophy, RING chromosome 20 epilepsy syndrome and Alagille syndrome are also associated with chromosome 20.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SLMO2 (human) mapping to 20q13.32.

PROTOCOLS

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

PRODUCT

SLMO2 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 SLMO2 shRNA Plasmid (h): sc-76517-SH and SLMO2 shRNA (h) Lentiviral Particles: sc-76517-V as alternate gene silencing products.

For independent verification of SLMO2 (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-76517A, sc-76517B and sc-76517C.

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

SLMO2 siRNA (h) is recommended for the inhibition of SLMO2 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 SLMO2 gene expression knockdown using RT-PCR Primer: SLMO2 (h)-PR: sc-76517-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.