

DPY19L1 siRNA (h): sc-156155

BACKGROUND

Dpy-19 (dumpy-19), is a 683 amino acid *C. elegans* protein that is required to orient the neuroblasts QL and QR correctly on the anterior/posterior axis. Dpy-19 is expressed highly in dorsal hyp7 cells, ventral P cells and lateral V cells, and dorsal and ventral body muscle cells. DPY19L1 (Dpy-19-like protein 1), also known as KIAA0877, is a 675 amino acid multi-pass membrane protein that belongs to the Dpy-19 family. DPY19L1 is expressed as two isoforms produced by alternative splicing and is encoded by a gene mapping to human chromosome 7p14.3, which encodes over 1,000 genes and makes up about 5% of the human genome. Diseases associated with chromosome 7 include osteogenesis imperfecta, Pendred syndrome, Lissencephaly, citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DPY19L1 (human) mapping to 7p14.3.

PROTOCOLS

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

PRODUCT

DPY19L1 siRNA (h) is a target-specific 19-25 nt siRNA 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 DPY19L1 shRNA Plasmid (h): sc-156155-SH and DPY19L1 shRNA (h) Lentiviral Particles: sc-156155-V as alternate gene silencing products.

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

DPY19L1 siRNA (h) is recommended for the inhibition of DPY19L1 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 DPY19L1 gene expression knockdown using RT-PCR Primer: DPY19L1 (h)-PR: sc-156155-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.