

# DPY19L1 siRNA (m): sc-143163

## 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 7, 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 (mouse) mapping to 9 A4.

## RESEARCH USE

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

## PRODUCT

DPY19L1 siRNA (m) 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see DPY19L1 shRNA Plasmid (m): sc-143163-SH and DPY19L1 shRNA (m) Lentiviral Particles: sc-143163-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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

DPY19L1 siRNA (m) is recommended for the inhibition of DPY19L1 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  $\mu$ M in 66  $\mu$ 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 (m)-PR: sc-143163-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.