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# Midnolin siRNA (m): sc-149428



The Power to Question

### **BACKGROUND**

Midnolin, also known as midbrain nucleolar protein or MIDN, is a 468 amino acid nuclear protein that is thought to regulate genes that participate in neurogenesis in the nucleolus. Containing one ubiquitin-like domain, Midnolin is expressed in kidney, heart, liver and lung, and is encoded by a gene that maps to human chromosome 19p13.3. Consisting of around 63 million bases with over 1,400 genes, chromosome 19 makes up over 2% of human genomic DNA and is the genetic home for a number of immunoglobulin superfamily members including the killer cell and leukocyte lg-like receptors, a number of ICAMs, the CEACAM and PSG families, and  $Fc\alpha$  receptors. Key genes for eye color and hair color also map to chromosome 19. Peutz-Jeghers syndrome, spinocerebellar ataxia type 6, the stroke disorder CADASIL, hypercholesterolemia and Insulin-dependent diabetes have been linked to chromosome 19.

# **REFERENCES**

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# **CHROMOSOMAL LOCATION**

Genetic locus: Midn (mouse) mapping to 10 C1.

# **PRODUCT**

Midnolin 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 Midnolin shRNA Plasmid (m): sc-149428-SH and Midnolin shRNA (m) Lentiviral Particles: sc-149428-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**

Midnolin siRNA (m) is recommended for the inhibition of Midnolin 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 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 Midnolin gene expression knockdown using RT-PCR Primer: Midnolin (m)-PR: sc-149428-PR (20  $\mu$ 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.

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