



## DPF1 siRNA (m): sc-143155

### BACKGROUND

DPF1 (D4, zinc and double PHD fingers family 1), also known as NEUD4 or neuro-d4, is a 353 amino acid protein that contains two PHD-type zinc fingers and belongs to the requiem/DPF family. Localized to both the nucleus and the cytoplasm, DPF1 is thought to play an important role in the regulation of neuronal cell survival. Specifically, DPF1 may function as a neurospecific transcription factor that binds DNA and participates in cell cycle progression. Human and rat DPF1 share 93% sequence identity, suggesting a conserved role between species. Multiple isoforms of DPF1 exist due to alternative splicing events.

### REFERENCES

1. Buchman, V.L., et al. 1992. Differential splicing creates a diversity of transcripts from a neurospecific developmentally regulated gene encoding a protein with new zinc-finger motifs. *Nucleic Acids Res.* 20: 5579-5585.
2. Aasland, R., et al. 1995. The PHD finger: implications for chromatin-mediated transcriptional regulation. *Trends Biochem. Sci.* 20: 56-59.
3. Chestkov, A.V., et al. 1996. The d4 gene family in the human genome. *Genomics* 36: 174-177.
4. Pascual, J., et al. 2000. Structure of the PHD zinc finger from human Williams-Beuren syndrome transcription factor. *J. Mol. Biol.* 304: 723-729.
5. Ninkina, N.N., et al. 2001. Cerd4, third member of the d4 gene family: expression and organization of genomic locus. *Mamm. Genome* 12: 862-866.
6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 601670. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

### CHROMOSOMAL LOCATION

Genetic locus: Dpf1 (mouse) mapping to 7 B1.

### PRODUCT

DPF1 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 DPF1 shRNA Plasmid (m): sc-143155-SH and DPF1 shRNA (m) Lentiviral Particles: sc-143155-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

DPF1 siRNA (m) is recommended for the inhibition of DPF1 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 DPF1 gene expression knockdown using RT-PCR Primer: DPF1 (m)-PR: sc-143155-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](http://www.scbt.com) for detailed protocols and support products.