SANTA CRUZ BIOTECHNOLOGY, INC.

DPF1 siRNA (h): sc-97084

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

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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.
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CHROMOSOMAL LOCATION

Genetic locus: DPF1 (human) mapping to 19q13.2.

PRODUCT

DPF1 siRNA (h) is a pool of 2 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 DPF1 shRNA Plasmid (h): sc-97084-SH and DPF1 shRNA (h) Lentiviral Particles: sc-97084-V as alternate gene silencing products.

For independent verification of DPF1 (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-97084A and sc-97084B.

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

DPF1 siRNA (h) is recommended for the inhibition of DPF1 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 DPF1 gene expression knockdown using RT-PCR Primer: DPF1 (h)-PR: sc-97084-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.

PROTOCOLS

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