SANTA CRUZ BIOTECHNOLOGY, INC.

DPF3 siRNA (h): sc-92150

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The Power to Question

BACKGROUND

DPF3 (D4, zinc and double PHD fingers, family 3), also known as CERD4 or BAF45C (BRG1-associated factor 45C), is a 378 amino acid protein belonging to the requiem/DPF family. Localized to the nucleus, DPF3 contains one C_2H_2-type zinc finger and two PHD-type zinc fingers, which mediate the binding of DPF3 to acetylated histones H3 and H4. DPF3 is a component of the BAF complex in muscle cells and of the neuron-specific chromatin remodeling complex, also known as nBAF. Within these complexes, DPF3 acts as a tissue-specific anchor between histone acetylations and methylations, and chromatin remodeling. Therefore, DPF3 is believed to play an important role in heart and skeletal muscle development. DPF3 is expressed as four isoforms produced by alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DPF3 (human) mapping to 14q24.2.

PRODUCT

DPF3 siRNA (h) is a pool of 3 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 DPF3 shRNA Plasmid (h): sc-92150-SH and DPF3 shRNA (h) Lentiviral Particles: sc-92150-V as alternate gene silencing products.

For independent verification of DPF3 (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-92150A, sc-92150B and sc-92150C.

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

DPF3 siRNA (h) is recommended for the inhibition of DPF3 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 DPF3 gene expression knockdown using RT-PCR Primer: DPF3 (h)-PR: sc-92150-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Liu, X., Geng, Y., Liang, J., Coelho, A.L., Yao, C., Deng, N., Wang, Y., Dai, K., Huang, G., Xie, T., Liu, N., Rowan, S.C., Taghavifar, F., Kulur, V., Liu, Z., Stripp, B.R., Hogaboam, C.M., Jiang, D. and Noble, P.W. 2022. HER2 drives lung fibrosis by activating a metastatic cancer signature in invasive lung fibroblasts. J. Exp. Med. 219: e20220126.

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.