



GDF-1 siRNA (h): sc-39764

BACKGROUND

Growth/differentiation factors (GDFs) are members of the TGF β superfamily. Members of the TGF β superfamily are involved in embryonic development and adult tissue homeostasis. GDF-1 expression is almost exclusively restricted to the central nervous system, most strongly expressed in the hippocampus and cortex of the brain. The function of GDF-1 is not completely known, however, it may mediate cell differentiation events during embryonic development.

REFERENCES

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9. Andersson, O., Bertolino, P. and Ibáñez, C.F. 2007. Distinct and cooperative roles of mammalian Vg1 homologs GDF-1 and GDF-3 during early embryonic development. *Dev. Biol.* 311: 500-511.

CHROMOSOMAL LOCATION

Genetic locus: GDF1 (human) mapping to 19p13.11.

PRODUCT

GDF-1 siRNA (h) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see GDF-1 shRNA Plasmid (h): sc-39764-SH and GDF-1 shRNA (h) Lentiviral Particles: sc-39764-V as alternate gene silencing products.

RESEARCH USE

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

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

GDF-1 siRNA (h) is recommended for the inhibition of GDF-1 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 μ M in 66 μ 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 GDF-1 gene expression knockdown using RT-PCR Primer: GDF-1 (h)-PR: sc-39764-PR (20 μ l, 590 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Lee, J., Ko, J. and Yi, J.Y. 2018. Histone deacetylase inhibitor (HDACi) upregulates activin A and activates the Smad signaling pathway in melanomas. *J. Dermatol. Sci.* 90: 13-20.

PROTOCOLS

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