



Wnt-6 siRNA (h): sc-94607

BACKGROUND

The Wnt family of protooncogenes consists of at least 13 known members which encode secreted signaling proteins that are involved in oncogenesis and several other developmental processes, such as regulation of cell fate and embryogenesis. Wnt-6 (wingless-type MMTV integration site family, member 6) is a 365 amino acid secreted protein of the extracellular space that acts as a ligand for several members of the frizzled family. A probable developmental protein expressed at high levels in brain and testis, Wnt-6 is thought to play a role in carcinogenesis and interacts with PORCN. Wnt-6 is coexpressed in SW480 and HeLa S3 cells with Wnt-10a, and both proteins are encoded by genes that are tightly clustered on human chromosome 2q35.

REFERENCES

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2. Nusse, R., Brown, A., Papkoff, J., Scambler, P., Shackleford, G., McMahon, A., Moon, R. and Varmus, H. 1991. A new nomenclature for int-1 and related genes: the Wnt gene family. *Cell* 64: 231.
3. Parr, B.A., Shea, M.J., Vassileva, G. and McMahon, A.P. 1993. Mouse Wnt genes exhibit discrete domains of expression in the early embryonic CNS and limb buds. *Development* 119: 247-261.
4. Cadigan, K.M. and Nusse, R. 1997. Wnt signaling: a common theme in animal development. *Genes Dev.* 11: 3286-3305.
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6. Kirikoshi, H., Sekihara, H. and Katoh, M. 2001. WNT10A and WNT6, clustered in human chromosome 2q35 region with head-to-tail manner, are strongly coexpressed in SW480 cells. *Biochem. Biophys. Res. Commun.* 283: 798-805.
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CHROMOSOMAL LOCATION

Genetic locus: WNT6 (human) mapping to 2q35.

PRODUCT

Wnt-6 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 Wnt-6 shRNA Plasmid (h): sc-94607-SH and Wnt-6 shRNA (h) Lentiviral Particles: sc-94607-V as alternate gene silencing products.

PROTOCOLS

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

Wnt-6 siRNA (h) is recommended for the inhibition of Wnt-6 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 Wnt-6 gene expression knockdown using RT-PCR Primer: Wnt-6 (h)-PR: sc-94607-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Luo, T., Dunphy, P.S., Lina, T.T. and McBride, J.W. 2015. *Ehrlichia chaffeensis* exploits canonical and noncanonical host Wnt signaling pathways to stimulate phagocytosis and promote intracellular survival. *Infect. Immun.* 84: 686-700.

RESEARCH USE

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