

ZDHHC9 siRNA (h): sc-90991

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. ZDHHC9 (zinc-finger, DHHC-type containing 9), also known as DHHC9, CGI-89, ZNF379 or CXorf11, is a 364 amino acid protein that localizes to the membrane of the endoplasmic reticulum and contains one DHHC-type zinc-finger. Expressed at high levels in brain, lung, kidney, liver and skeletal muscle, ZDHHC9 exists in a complex with GOLGA7 and, via its DHHC domain, functions as a palmitoyltransferase that is specific for H-Ras and N-Ras. Mutations in the gene encoding ZDHHC9 are associated with X-linked mental retardation and colorectal cancer, the latter of which suggests a role in tumorigenesis.

REFERENCES

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- Raymond, F.L., et al. 2007. Mutations in ZDHHC9, which encodes a palmitoyltransferase of NRAS and HRAS, cause X-linked mental retardation associated with a Marfanoid habitus. *Am. J. Hum. Genet.* 80: 982-987.
- Mansilla, F., et al. 2007. Differential expression of DHHC9 in microsatellite stable and unstable human colorectal cancer subgroups. *Br. J. Cancer* 96: 1896-1903.

CHROMOSOMAL LOCATION

Genetic locus: ZDHHC9 (human) mapping to Xq26.1.

PRODUCT

ZDHHC9 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ZDHHC9 shRNA Plasmid (h): sc-90991-SH and ZDHHC9 shRNA (h) Lentiviral Particles: sc-90991-V as alternate gene silencing products.

For independent verification of ZDHHC9 (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-90991A, sc-90991B and sc-90991C.

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

ZDHHC9 siRNA (h) is recommended for the inhibition of ZDHHC9 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 ZDHHC9 gene expression knockdown using RT-PCR Primer: ZDHHC9 (h)-PR: sc-90991-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

- Porte, B., et al. 2017. Major remodeling of brain microvessels during neonatal period in the mouse: a proteomic and transcriptomic study. *J. Cereb. Blood Flow Metab.* 37: 495-513.

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.