

# HIP14L siRNA (m): sc-75258

## 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. HIP14L, also known as ZDHHC13 (zinc finger, DHHC-type containing 13) or HIP3RP, is a 622 amino acid multi-pass membrane protein that contains one DHHC-type zinc finger and six ANK repeats. Expressed as multiple alternatively spliced isoforms, HIP14L functions as a palmitoyltransferase that catalyzes the conversion of palmitoyl-CoA and a protein-cysteine to an S-palmitoyl protein and CoA and, via this catalytic activity, may be involved in the NF $\kappa$ B signaling pathway. The gene encoding HIP14L maps to human chromosome 11p15.1, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

## REFERENCES

1. Singaraja, R.R., et al. 2002. HIP14, a novel ankyrin domain-containing protein, links huntingtin to intracellular trafficking and endocytosis. *Hum. Mol. Genet.* 11: 2815-2828.
2. Huang, K., et al. 2004. Huntingtin-interacting protein HIP14 is a palmitoyl transferase involved in palmitoylation and trafficking of multiple neuronal proteins. *Neuron* 44: 977-986.
3. Yanai, A., et al. 2006. Palmitoylation of huntingtin by HIP14 is essential for its trafficking and function. *Nat. Neurosci.* 9: 824-831.
4. Goytain, A., et al. 2008. Huntingtin-interacting proteins, HIP14 and HIP14L, mediate dual functions, palmitoyl acyltransferase and Mg<sup>2+</sup> transport. *J. Biol. Chem.* 283: 33365-33374.
5. Huang, K., et al. 2009. Neuronal palmitoyl acyl transferases exhibit distinct substrate specificity. *FASEB J.* 23: 2605-2615.
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## CHROMOSOMAL LOCATION

Genetic locus: Zdhhc13 (mouse) mapping to 7 B4.

## PRODUCT

HIP14L siRNA (m) 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see HIP14L shRNA Plasmid (m): sc-75258-SH and HIP14L shRNA (m) Lentiviral Particles: sc-75258-V as alternate gene silencing products.

For independent verification of HIP14L (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-75258A, sc-75258B and sc-75258C.

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

## APPLICATIONS

HIP14L siRNA (m) is recommended for the inhibition of HIP14L expression in mouse 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  $\mu$ M in 66  $\mu$ 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 HIP14L gene expression knockdown using RT-PCR Primer: HIP14L (m)-PR: sc-75258-PR (20  $\mu$ l). 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](http://www.scbt.com) for detailed protocols and support products.