

ZDHHC8 siRNA (h): sc-76955

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. ZDHHC8 (zinc finger, DHHC-type containing 8), also known as KIAA1292, ZDHHC1 or ZNF378 (zinc finger protein 378), is a 765 amino acid multi-pass membrane protein that localizes to the membrane of cytoplasmic vesicles and contains one DHHC-type zinc finger. Expressed as multiple alternatively spliced isoforms, ZDHHC8 functions as a putative palmitoyltransferase that catalyzes the conversion of palmitoyl-CoA and a protein-cysteine to an S-palmitoyl protein and free CoA, a reaction that is important in glutamatergic transmission. Defects in the gene encoding ZDHHC8 may be associated with an increased susceptibility to schizophrenia.

REFERENCES

- Chen, W.Y., et al. 2004. Case-control study and transmission disequilibrium test provide consistent evidence for association between schizophrenia and genetic variation in the 22q11 gene ZDHHC8. *Hum. Mol. Genet.* 13: 2991-2995.
- Mukai, J., et al. 2004. Evidence that the gene encoding ZDHHC8 contributes to the risk of schizophrenia. *Nat. Genet.* 36: 725-731.
- Faul, T., et al. 2005. ZDHHC8 as a candidate gene for schizophrenia: analysis of a putative functional intronic marker in case-control and family-based association studies. *BMC Psychiatry* 5: 35.
- Otani, K., et al. 2005. The ZDHHC8 gene did not associate with bipolar disorder or schizophrenia. *Neurosci. Lett.* 390: 166-170.
- Glaser, B., et al. 2006. Analysis of ProDH, COMT and ZDHHC8 risk variants does not support individual or interactive effects on schizophrenia susceptibility. *Schizophr. Res.* 87: 21-27.

CHROMOSOMAL LOCATION

Genetic locus: ZDHHC8 (human) mapping to 22q11.21.

PRODUCT

ZDHHC8 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 ZDHHC8 shRNA Plasmid (h): sc-76955-SH and ZDHHC8 shRNA (h) Lentiviral Particles: sc-76955-V as alternate gene silencing products.

For independent verification of ZDHHC8 (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-76955A, sc-76955B and sc-76955C.

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.

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

ZDHHC8 siRNA (h) is recommended for the inhibition of ZDHHC8 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.

GENE EXPRESSION MONITORING

ZDHHC8 (B-3): sc-374191 is recommended as a control antibody for monitoring of ZDHHC8 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor ZDHHC8 gene expression knockdown using RT-PCR Primer: ZDHHC8 (h)-PR: sc-76955-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.