

DENND1B siRNA (h): sc-88450

BACKGROUND

DENND1B (DENN/MADD domain containing 1B), also known as C1orf218 or FAM31B, is a 426 amino acid protein that contains a dDENN domain, DENN domain and uDENN domain and exists as five isoforms as a result of alternative splicing. The DENND1B protein contains phosphorylation sites on Tyr 475, Tyr 484, Ser 514 and Ser 652 and is thought to activate Rab35 in an endocytic pathway trafficking Shiga toxin to the *trans*-Golgi network. The gene encoding DENND1B maps to human chromosome 1q31.3, the largest human chromosome which spans about 260 million base pairs and makes up 8% of the human genome, where it may be involved in asthma susceptibility. Other notable genes located on chromosome 1 include LMNA, which is associated with the rare aging disease Hutchinson-Gilford progeria, and the MUTYH gene, which is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome.

REFERENCES

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6. Hennah, W., et al. 2006. Genes and schizophrenia: beyond schizophrenia: the role of DISC1 in major mental illness. *Schizophr. Bull.* 32: 409-416.
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8. McClintock, D., et al. 2006. Hutchinson-Gilford progeria mutant Lamin A primarily targets human vascular cells as detected by an anti-Lamin A G608G antibody. *Proc. Natl. Acad. Sci. USA* 103: 2154-2159.
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CHROMOSOMAL LOCATION

Genetic locus: DENND1B (human) mapping to 1q31.3.

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.

PRODUCT

DENND1B 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 DENND1B shRNA Plasmid (h): sc-88450-SH and DENND1B shRNA (h) Lentiviral Particles: sc-88450-V as alternate gene silencing products.

For independent verification of DENND1B (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-88450A, sc-88450B and sc-88450C.

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

DENND1B siRNA (h) is recommended for the inhibition of DENND1B 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 DENND1B gene expression knockdown using RT-PCR Primer: DENND1B (h)-PR: sc-88450-PR (20 μ l, 543 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.