SANTA CRUZ BIOTECHNOLOGY, INC.

NDUFB1 siRNA (h): sc-92336

BACKGROUND

NDUFB1 (NADH dehydrogenase [ubiquinone] 1 β subcomplex subunit 1), also known as CI-MNLL (complex I-MNLL), CI-SGDH or NADH-ubiquinone oxidoreductase MNLL subunit, is a 58 amino acid single-pass membrane protein that localizes to the matrix side of the mitochondrial membrane. A member of the complex I NDUFB1 subunit family, NDUFB1 is encoded by a gene that maps to human chromosome 14q32.12. Chromosome 14 houses over 700 genes and comprises nearly 3.5% of the human genome. Chromosome 14 encodes the presinilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD). The SERPINA1 gene is also located on chromosome 14 and, when defective, leads to the genetic disorder α1-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NDUFB1 (human) mapping to 14q32.12.

PROTOCOLS

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

PRODUCT

NDUFB1 siRNA (h) is a pool of 2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see NDUFB1 shRNA Plasmid (h): sc-92336-SH and NDUFB1 shRNA (h) Lentiviral Particles: sc-92336-V as alternate gene silencing products.

For independent verification of NDUFB1 (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-92336A and sc-92336B.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

NDUFB1 siRNA (h) is recommended for the inhibition of NDUFB1 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 µM in 66 µl. 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.

RESEARCH USE

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