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SANTA CRUZ BIOTECHNOLOGY, INC.

NDUFA12 siRNA (m): sc-149869

BACKGROUND

NDUFA12 (NADH dehydrogenase (ubiquinone) 1 α subcomplex subunit 12), also known as DAP13 (13 kDa differentiation-associated protein) or NADH-ubiquinone oxidoreductase subunit B17.2, or CI-B17.2 (complex I-B17.2), is a 145 amino acid peripheral membrane protein that localizes to the matrix side of the mitochondrial inner membrane. A member of the complex I NDUFA12 subunit family, NDUFA12 is a subunit of a respiratory chain complex. The gene encoding NDUFA12 maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

REFERENCES

1. Skehel, J.M., Fearnley, I.M. and Walker, J.E. 1998. NADH:ubiquinone oxidoreductase from bovine heart mitochondria: sequence of a novel 17.2-kDa subunit. FEBS Lett. 438: 301-305.
2. Triepels, R., Smeitink, J., Loeffen, J., Smeets, R., Trijbels, F. and van den Heuvel, L. 2000. Characterization of the human complex I NDUFB7 and 17.2-kDa cDNAs and mutational analysis of 19 genes of the HP fraction in complex I-deficient-patients. Hum. Genet. 106: 385-391.
3. Delgado Carrasco, J., Casanova Morcillo, A., Zabalza Alvillos, M. and Ayala Garces, A. 2001. Achondrogenesis type II-hypochondrogenesis: radiological features.Case report. An. Esp. Pediatr. 55: 553-557.
4. Yokoyama, T., Nakatani, S. and Murakami, A. 2003. A case of Kniest dysplasia with retinal detachment and the mutation analysis. Am. J. Ophthalmol. 136: 1186-1188.
5. Murray, J., Zhang, B., Taylor, S.W., Oglesbee, D., Fahy, E., Marusich, M.F., Ghosh, S.S. and Capaldi, R.A. 2003. The subunit composition of the human NADH dehydrogenase obtained by rapid one-step immunopurification. J. Biol. Chem. 278: 13619-13622.
6. Forzano, F., Lituania, M., Viassolo, A., Superti-Furga, V., Wildhardt, G., Zabel, B. and Faravelli, F. 2007. A familial case of achondrogenesis type II caused by a dominant COL2A1 mutation and "patchy" expression in the mosaic father. Am. J. Med. Genet. A 143: 2815-2820.
7. Wainwright, H. and Beighton, P. 2008. Visceral manifestations of hypochondrogenesis. Virchows Arch. 453: 203-207.
8. Lo, F.S., Luo, J.D., Lee, Y.J., Shu, S.G., Kuo, M.T. and Chiou, C.C. 2009. High resolution melting analysis for mutation detection for PTPN11 gene: applications of this method for diagnosis of Noonan syndrome. Clin. Chim. Acta 409: 75-77.
9. Benussi, D.G., Costa, P., Zollino, M., Murdolo, M., Petix, V., Carrozzi, M. and Pecile, V. 2009. Trisomy 12p and monosomy 4p: phenotype-genotype correlation. Genet. Test. Mol. Biomarkers 13: 199-204.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Ndufa12 (mouse) mapping to 10 C2.

PRODUCT

NDUFA12 siRNA (m) 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 NDUFA12 shRNA Plasmid (m): sc-149869-SH and NDUFA12 shRNA (m) Lentiviral Particles: sc-149869-V as alternate gene silencing products.

For independent verification of NDUFA12 (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-149869A and sc-149869B.

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

NDUFA12 siRNA (m) is recommended for the inhibition of NDUFA12 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 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor NDUFA12 gene expression knockdown using RT-PCR Primer: NDUFA12 (m)-PR: sc-149869-PR (20 µl). 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.