CCDC126 siRNA (m): sc-142070



The Power to Question

BACKGROUND

CCDC126 (coiled-coil domain containing 126), also known as FLJ23031 or MGC104248, is a 140 amino acid secreted protein encoded by a gene mapping to human chromosome 7. Chromosome 7 is about 158 milllion bases long, encodes over 1000 genes and makes up about 5% of the human genome. Chromosome 7 has been linked to Osteogenesis imperfecta, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia.

REFERENCES

- 1. Tsipouras, P., et.al. 1983. Restriction fragment length polymorphism associated with the pro α 2(I) gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. J. Clin. Invest. 72: 1262-1267.
- Liang, H., et.al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. Proc. Natl. Acad. Sci. USA 95: 3781-3785.
- 3. Hillier, L.W., et.al. 2003. The DNA sequence of human chromosome 7. Nature 424: 157-164.
- Eckert, M.A., et.al. 2006. The neurobiology of Williams syndrome: cascading influences of visual system impairment? Cell. Mol. Life Sci. 63: 1867-1875.
- Osborne, L.R., et.al. 2006. Williams-Beuren syndrome diagnosis using fluorescence in situ hybridization. Methods Mol. Med. 126: 113-128.
- Reiner, O., et.al. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. Neuromolecular Med. 8: 547-565.
- Shimamura, A. 2006. Shwachman-Diamond syndrome. Semin. Hematol. 43: 178-188.
- 8. Brezinová, J., et.al. 2007. Structural aberrations of chromosome 7 revealed by a combination of molecular cytogenetic techniques in myeloid malignancies. Cancer Genet. Cytogenet. 173: 10-16.
- Leone, G., Pagano, L., Ben-Yehuda, D. and Voso, M.T. 2007. Therapy-related leukemia and myelodysplasia: susceptibility and incidence. Haematologica 92: 1389-1398.

CHROMOSOMAL LOCATION

Genetic locus: Ccdc126 (mouse) mapping to 6 B2.3.

PROTOCOLS

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

PRODUCT

CCDC126 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CCDC126 shRNA Plasmid (m): sc-142070-SH and CCDC126 shRNA (m) Lentiviral Particles: sc-142070-V as alternate gene silencing products.

For independent verification of CCDC126 (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-142070A, sc-142070B and sc-142070C.

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

CCDC126 siRNA (m) is recommended for the inhibition of CCDC126 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 CCDC126 gene expression knockdown using RT-PCR Primer: CCDC126 (m)-PR: sc-142070-PR (20 μ 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.

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