SANTA CRUZ BIOTECHNOLOGY, INC.

CCDC65 siRNA (m): sc-142132

BACKGROUND

CCDC65 (coiled-coil domain-containing protein 65), also known as testis development protein NYD-SP28, is a 484 amino acid cytoplasmic protein that is highly expressed in spermatids, spermatocytes and spermatogonia of adult testis. Posttranslationally modified during capacitation, CCDC65 contains many potential phosphorylation sites and two potential sites each for N-glycosylation and N-myristoylation. The gene encoding CCDC65 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. There are two isoforms of CCDC65 that are produced as a result of alternative splicing events.

REFERENCES

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2. Gilbert, F., et al. 2000. Disease genes and chromosomes: disease maps of the human genome.Chromosome 12. Genet. Test. 4: 319-333.
3. Montgomery, K.T., et al. 2001. A high-resolution map of human chromosome 12. Nature 409: 945-946.
4. Jishage, M., et al. 2003. Identification of target genes for EWS/ATF-1 chimeric transcription factor. Oncogene 22: 41-49.
5. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. Nat. Genet. 36: 40-45.
6. Riaz, N., et al. 2005. Genomewide significant linkage to stuttering on chromosome 12. Am. J. Hum. Genet. 76: 647-651.
7. Zheng, Y., et al. 2006. Cloning and characterization of a novel sperm tail protein, NYD-SP28. Int. J. Mol. Med. 18: 1119-1125.
8. Scherer, S.E., et al. 2006. The finished DNA sequence of human chromosome 12. Nature 440: 346-351.

CHROMOSOMAL LOCATION

Genetic locus: Ccdc65 (mouse) mapping to 15 F1.

PRODUCT

CCDC65 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CCDC65 shRNA Plasmid (m): sc-142132-SH and CCDC65 shRNA (m) Lentiviral Particles: sc-142132-V as alternate gene silencing products.

For independent verification of CCDC65 (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-142132A, sc-142132B and sc-142132C.

RESEARCH USE

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

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

CCDC65 siRNA (m) is recommended for the inhibition of CCDC65 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 CCDC65 gene expression knockdown using RT-PCR Primer: CCDC65 (m)-PR: sc-142132-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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