

CCDC34 siRNA (m): sc-142104

BACKGROUND

The coiled-coil domain is a structural motif found in proteins that are involved in a diverse array of biological functions such as the regulation of gene expression, cell division, membrane fusion and drug extrusion and delivery. CCDC34 (coiled-coil domain containing 34), also known as Renal carcinoma antigen NY-REN-41, is a 373 amino acid protein that is expressed in testis, breast, lung, placenta, liver and small intestine. A translocation between the short arms of chromosomes 11 and 18 affecting the CCDC34 gene has been identified in a patient with hamartoma of the retinal pigment epithelium. There are two isoforms of CCDC34 that are produced as a result of alternative splicing events.

REFERENCES

1. Scanlan, M.J., Gordan, J.D., Williamson, B., Stockert, E., Bander, N.H., Jongeneel, V., Gure, A.O., Jäger, D., Jäger, E., Knuth, A., Chen, Y.T. and Old, L.J. 1999. Antigens recognized by autologous antibody in patients with renal-cell carcinoma. *Int. J. Cancer* 83: 456-464.
2. Kutsche, K., Glauner, E., Knauf, S., Pomarino, A., Schmidt, M., Schröder, B., Nothwang, H., Schüler, H., Goecke, T., Kersten, A., Althaus, C. and Gal, A. 2000. Cloning and characterization of the breakpoint regions of a chromosome 11;18 translocation in a patient with hamartoma of the retinal pigment epithelium. *Cytogenet. Cell Genet.* 91: 141-147.
3. Petroziello, J., Yamane, A., Westendorf, L., Thompson, M., McDonagh, C., Cerveny, C., Law, C.L., Wahl, A. and Carter, P. 2004. Suppression subtractive hybridization and expression profiling identifies a unique set of genes overexpressed in non-small-cell lung cancer. *Oncogene* 23: 7734-7745.
4. Taylor, T.D., Noguchi, H., Totoki, Y., Toyoda, A., Kuroki, Y., Dewar, K., Lloyd, C., Itoh, T., Takeda, T., Kim, D.W., She, X., Barlow, K.F., Bloom, T., Bruford, E., Chang, J.L., Cuomo, C.A., Eichler, E., FitzGerald, M.G., Jaffe, D.B., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. *Nature* 440: 497-500.

CHROMOSOMAL LOCATION

Genetic locus: Ccdc34 (mouse) mapping to 2 E3.

PRODUCT

CCDC34 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 CCDC34 shRNA Plasmid (m): sc-142104-SH and CCDC34 shRNA (m) Lentiviral Particles: sc-142104-V as alternate gene silencing products.

For independent verification of CCDC34 (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-142104A, sc-142104B and sc-142104C.

PROTOCOLS

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

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

CCDC34 siRNA (m) is recommended for the inhibition of CCDC34 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 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 CCDC34 gene expression knockdown using RT-PCR Primer: CCDC34 (m)-PR: sc-142104-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.