

SDCCAG10 siRNA (h): sc-91794

BACKGROUND

SDCCAG10 (serologically defined colon cancer antigen 10), is also known as CWC27 (CWC27 spliceosome-associated protein homolog), is a 472 amino acid protein that belongs to the cyclophilin-type PPlase family. Functioning as a PPlases that accelerates the folding of proteins, the SDCCAG10 protein contains one PPlase cyclophilin-type domain. Existing as two alternatively spliced isoforms, the SDCCAG10 gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish, fruit fly, mosquito, *C. elegans*, *S. pombe*, *M. grisea*, *N. crassa*, *A. thaliana* and rice, and maps to human chromosome 5q12.3. Chromosome 5 makes up approximately 6% of the human genome and contains 181 million base pairs, which encode 1,000 genes. Treacher Collins syndrome is caused by insertions or deletions within the TCOF1 gene and is also associated with chromosome 5. Deletion of 5q or chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

1. Dixon, M.J., Read, A.P., Donnai, D., Colley, A., Dixon, J. and Williamson, R. 1991. The gene for Treacher Collins syndrome maps to the long arm of chromosome 5. *Am. J. Hum. Genet.* 49: 17-22.
2. Saltman, D.L., Dolganov, G.M., Warrington, J.A., Wasmuth, J.J. and Lovett, M. 1993. A physical map of 15 loci on human chromosome 5q23-q33 by two-color fluorescence *in situ* hybridization. *Genomics* 16: 726-732.
3. Scanlan, M.J., Chen, Y.T., Williamson, B., Gure, A.O., Stockert, E., Gordan, J.D., Türeci, O., Sahin, U., Pfreundschuh, M. and Old, L.J. 1998. Characterization of human colon cancer antigens recognized by autologous antibodies. *Int. J. Cancer* 76: 652-658.
4. Clark, H.F., Gurney, A.L., Abaya, E., Baker, K., Baldwin, D., et al. 2003. The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a bioinformatics assessment. *Genome Res.* 13: 2265-2270.
5. Marklund, L., Melin, M., Melberg, A., Giedraitis, V. and Dahl, N. 2006. Adult-onset autosomal dominant leukodystrophy with autonomic symptoms restricted to 1.5 Mbp on chromosome 5q23. *Am. J. Med. Genet. B Neuropsychiatr. Genet.* 141B: 608-614.
6. Mullighan, C.G., Phillips, L.A., Su, X., Ma, J., Miller, C.B., Shurtleff, S.A. and Downing, J.R. 2008. Genomic analysis of the clonal origins of relapsed acute lymphoblastic leukemia. *Science* 322: 1377-1380.

CHROMOSOMAL LOCATION

Genetic locus: CWC27 (human) mapping to 5q12.3.

RESEARCH USE

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

PROTOCOLS

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

PRODUCT

SDCCAG10 siRNA (h) 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 SDCCAG10 shRNA Plasmid (h): sc-91794-SH and SDCCAG10 shRNA (h) Lentiviral Particles: sc-91794-V as alternate gene silencing products.

For independent verification of SDCCAG10 (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-91794A, sc-91794B and sc-91794C.

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

SDCCAG10 siRNA (h) is recommended for the inhibition of SDCCAG10 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 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 SDCCAG10 gene expression knockdown using RT-PCR Primer: SDCCAG10 (h)-PR: sc-91794-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.