SANTA CRUZ BIOTECHNOLOGY, INC.

SDCCAG8 siRNA (m): sc-153285

BACKGROUND

SDCCAG8 (serologically defined colon cancer antigen 8), also known as CCCAP (centrosomal colon cancer autoantigen protein), HSPC085 or NY-CO-8, is a 713 amino acid cytoplasmic protein that is expressed in thymus, prostate, testis, ovary, small intestine, colon, mucosa and renal cancer tumors. Existing as a homodimer, SDCCAG8 localizes to centrioles and interacts with oral-facial-digital syndrome 1 (ODF1), which is associated with nephronophthisis-related ciliopathies (NPHP-RC), a recessive disorder that is characterized by dysplasia or degeneration of the kidney, retina and cerebellum. SDCCAG8 exists as four alternatively spliced isoforms and is encoded by a gene located on humanc chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome.

REFERENCES

1. Kenedy, A.A., et al. 2003. Identification and characterization of the novel centrosome-associated protein CCCAP. Gene 303: 35-46.
2. Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. Anticancer Res. 26: 953-959.
3. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.
4. Stacey, S.N., et al. 2008. Common variants on 1p36 and 1q42 are associated with cutaneous basal cell carcinoma but not with melanoma or pigmentation traits. Nat. Genet. 40: 1313-1318.
5. Otto, E.A., et al. 2010. Candidate exome capture identifies mutation of SDCCAG8 as the cause of a retinal-renal ciliopathy. Nat. Genet. 42: 840-850.
6. Scherag, A., et al. 2010. Two new Loci for body-weight regulation identified in a joint analysis of genome-wide association studies for early-onset extreme obesity in French and german study groups. PLoS Genet. 6: e1000916.
7. SWISS-PROT/TrEMBL (Q86SQ7). World Wide Web URL: http://www.uniprot.org/uniprot/Q86SQ7

CHROMOSOMAL LOCATION

Genetic locus: Sdccag8 (mouse) mapping to 1 H4.

PRODUCT

SDCCAG8 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 SDCCAG8 shRNA Plasmid (m): sc-153285-SH and SDCCAG8 shRNA (m) Lentiviral Particles: sc-153285-V as alternate gene silencing products.

For independent verification of SDCCAG8 (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-153285A, sc-153285B and sc-153285C.

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

SDCCAG8 siRNA (m) is recommended for the inhibition of SDCCAG8 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 SDCCAG8 gene expression knockdown using RT-PCR Primer: SDCCAG8 (m)-PR: sc-153285-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.