SANTA CRUZ BIOTECHNOLOGY, INC.

OSCP1 siRNA (h): sc-88426

BACKGROUND

OSCP1 (organic solute transport protein 1), also known as NOR1 (oxidored-nitro domain-containing protein 1), is a 379 amino acid basal membrane protein. OSCP1 is ubiquitously expressed, with highest levels found in testis, placenta and tumor-derived cell lines. Localized to the syncytiotrophoblast in placenta, OSCP1 is thought to be involved in drug clearance in placenta. OSCP1 may also be involved in the progression or development of nosopharyngeal carcinoma. OSCP1 is expressed as two isoforms produced by alternative splicing events. The gene that encodes OSCP1 maps to human chromosome 1, which is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome.

REFERENCES

1. Nie, X., et al. 2003. Cloning, expression, and mutation analysis of NOR1, a novel human gene down-regulated in HNE1 nasopharyngeal carcinoma cell line. J. Cancer Res. Clin. Oncol. 129: 410-414.
2. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608854. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Kobayashi, Y., et al. 2005. Isolation and functional characterization of a novel organic solute carrier protein, hOSCP1. J. Biol. Chem. 280: 32332-32339.
4. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. Cytogenet. Genome Res. 108: 217-222.
5. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.
6. Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. Anticancer Res. 26: 953-959.

CHROMOSOMAL LOCATION

Genetic locus: OSCP1 (human) mapping to 1p34.3.

PRODUCT

OSCP1 siRNA (h) is a pool of 2 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 OSCP1 shRNA Plasmid (h): sc-88426-SH and OSCP1 shRNA (h) Lentiviral Particles: sc-88426-V as alternate gene silencing products.

For independent verification of OSCP1 (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-88426A and sc-88426B.

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.

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

OSCP1 siRNA (h) is recommended for the inhibition of OSCP1 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 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 OSCP1 gene expression knockdown using RT-PCR Primer: OSCP1 (h)-PR: sc-88426-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.