

PC-LKC siRNA (h): sc-91844

BACKGROUND

PC-LKC (protocadherin LKC), also known as CDHR2 (cadherin-related family member 2) or PCDH24 (protocadherin-24), is a 1,310 amino acid single-pass type I membrane protein that contains nine cadherin domains. Interacting with MAST205, PC-LKC plays a role in contact inhibition at the lateral surface of epithelial cells. While highly expressed in liver, kidney and colon, PC-LKC is moderately expressed in small intestine. In addition, PC-LKC is down-regulated in a number of liver and colon cancers. The gene that encodes PC-LKC consists of approximately 53,464 bases and maps to human chromosome 5q35.2. With 181 million base pairs encoding around 1,000 genes, chromosome 5 makes up about 6% of the human genome. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome and deletion of 5q or chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

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4. Okazaki, N., et al. 2002. Protocadherin LKC, a new candidate for a tumor suppressor of colon and liver cancers, its association with contact inhibition of cell proliferation. *Carcinogenesis* 23: 1139-1148.
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7. Vera-Carbonell, A., et al. 2009. Characterization of a *de novo* complex chromosomal rearrangement in a patient with cri-du-chat and trisomy 5p syndromes. *Am. J. Med. Genet. A* 149A: 2513-2521.
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CHROMOSOMAL LOCATION

Genetic locus: CDHR2 (human) mapping to 5q35.2.

PROTOCOLS

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

PRODUCT

PC-LKC 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 PC-LKC shRNA Plasmid (h): sc-91844-SH and PC-LKC shRNA (h) Lentiviral Particles: sc-91844-V as alternate gene silencing products.

For independent verification of PC-LKC (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-91844A, sc-91844B and sc-91844C.

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

PC-LKC siRNA (h) is recommended for the inhibition of PC-LKC 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 PC-LKC gene expression knockdown using RT-PCR Primer: PC-LKC (h)-PR: sc-91844-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.