SANTA CRUZ BIOTECHNOLOGY, INC.

CLCP1 siRNA (m): sc-72920

BACKGROUND

CLCP1 (CUB, LCCL and coagulation factor V/VIII-homology domains protein 1), also known as DCBLD2 (discoidin, CUB and LCCL domain containing 2) or ESDN, is a 775 amino acid single-pass type I membrane protein that contains one CUB domain, one LCCL domain and one F5/8 type C domain. Expressed at high levels in heart, testis and skeletal muscle, CLCP1 is thought to regulate vascular smooth muscle cell (VSMC) proliferation and remodeling and may be involved in the transformation and metastasis of various cancers, such as metastatic lung cancer and gastric carcinoma. Two isoforms of CLCP1 exist due to alternative splicing events. The gene encoding CLCP1 maps to human chromosome 3q12.1, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

REFERENCES

1. Kobuke, K., et al. 2001. ESDN, a novel neuropilin-like membrane protein cloned from vascular cells with the longest secretory signal sequence among eukaryotes, is up-regulated after vascular injury. J. Biol. Chem. 276: 34105-34114.
2. Koshikawa, K., et al. 2002. Significant up-regulation of a novel gene, CLCP1, in a highly metastatic lung cancer subline as well as in lung cancers *in vivo*. Oncogene 21: 2822-2828.
3. Zhang, Y., et al. 2005. Time-resolved mass spectrometry of tyrosine phosphorylation sites in the epidermal growth factor receptor signaling network reveals dynamic modules. Mol. Cell. Proteomics 4: 1240-1250.
4. Sadeghi, M.M., et al. 2007. ESDN is a marker of vascular remodeling and regulator of cell proliferation in graft arteriosclerosis. Am. J. Transplant. 7: 2098-2105.
5. Chen, Y., et al. 2007. Phosphoproteomics identified Endofin, DCBLD2, and KIAA0582 as novel tyrosine phosphorylation targets of EGF signaling and Iressa in human cancer cells. Proteomics 7: 2384-2397.
6. Hofsli, E., et al. 2008. Identification of novel neuroendocrine-specific tumour genes. Br. J. Cancer 99: 1330-1339.

CHROMOSOMAL LOCATION

Genetic locus: Dcbld2 (mouse) mapping to 16 C1.2.

PRODUCT

CLCP1 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 CLCP1 shRNA Plasmid (m): sc-72920-SH and CLCP1 shRNA (m) Lentiviral Particles: sc-72920-V as alternate gene silencing products.

For independent verification of CLCP1 (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-72920A, sc-72920B and sc-72920C.

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

CLCP1 siRNA (m) is recommended for the inhibition of CLCP1 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 CLCP1 gene expression knockdown using RT-PCR Primer: CLCP1 (m)-PR: sc-72920-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.