SANTA CRUZ BIOTECHNOLOGY, INC.

COBLL1 siRNA (m): sc-142449

BACKGROUND

COBLL1 (Cordon-bleu protein-like 1), also known as COBLR1 or COBL-like 1, is a 1,204 amino acid protein expressed in liver, kidney, pancreas, spinal cord, brain, lung and ovary. The mouse and human COBLL1 proteins share 63% identity. COBLL1 is highly related to Cordon-bleu, a protein involved in midline development that is specifically expressed in the node and its derivatives, including a portion of the neural tube floor plate, the notochord and the dorsal foregut. Both Cordon-bleu and COBLL1 contain a conserved N-terminus with KRAP (lysine, arginine and proline-rich) repeats, a homologous C-terminus with at least one WH2 domain (one in COBLL1 and three in Cordon-bleu) and a divergent central region. Due to the high degree of similarity between COBLL1 and Cordon-bleu, it has been suggested that COBLL1 may functionally compensate for Cordon-bleu in its absence.

REFERENCES

1. Gasca, S., et al. 1995. Characterization of a gene trap insertion into a novel gene, cordon-bleu, expressed in axial structures of the gastrulating mouse embryo. Dev. Genet. 17: 141-154.
2. Nagase, T., et al. 1999. Prediction of the coding sequences of unidentified human genes. XIII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 6: 63-70.
3. Mori, Y., et al. 2001. Instabilotyping: comprehensive identification of frameshift mutations caused by coding region microsatellite instability. Cancer Res. 61: 6046-6049.
4. Hitchins, M.P., et al. 2002. DDC and COBL, flanking the imprinted GRB10 gene on 7p12, are biallelically expressed. Mamm. Genome 13: 686-691.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610318. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Carroll, E.A., et al. 2003. Cordon-bleu is a conserved gene involved in neural tube formation. Dev. Biol. 262: 16-31.
7. Winckler, B., et al. 2007. Cordon-bleu: a new taste in actin nucleation. Cell 131: 236-238.

CHROMOSOMAL LOCATION

Genetic locus: Cobll1 (mouse) mapping to 2 C1.3.

PRODUCT

COBLL1 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 COBLL1 shRNA Plasmid (m): sc-142449-SH and COBLL1 shRNA (m) Lentiviral Particles: sc-142449-V as alternate gene silencing products.

For independent verification of COBLL1 (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-142449A, sc-142449B and sc-142449C.

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

COBLL1 siRNA (m) is recommended for the inhibition of COBLL1 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 COBLL1 gene expression knockdown using RT-PCR Primer: COBLL1 (m)-PR: sc-142449-PR (20 µl). 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.

PROTOCOLS

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