SANTA CRUZ BIOTECHNOLOGY, INC.

LCORL siRNA (h): sc-89132

BACKGROUND

LCORL (ligand dependent nuclear receptor corepressor-like), also known as transcription factor MLR1, STQTL13, MLR1, LCOR-like protein, MBLK1-related protein or FLJ30696, is a 602 amino acid protein which localizes to the nucleus and may play a role in spermatogenesis. LCORL has high homology with honeybee transcription factor Mblk1, and also binds and activates transcription from the same DNA elements as honeybee Mblk1. LCORL is highly expressed in testis, specifically in seminiferous tubules and spermatocytes, and is expressed at lower levels in heart, liver and kidney. LCORL contains one HTH psq-type DNA-binding domain, and two novel loci which may be associated with the length of the human trunk and hip axis. Three LCORL isoforms exist as a result of alternative splicing. The gene encoding LCORL maps to human chromosome 4p15.31.

REFERENCES

1. Kunieda, T., et al. 2003. Identification and characterization of Mlr1,2: two mouse homologues of Mblk-1, a transcription factor from the honeybee brain. FEBS Lett. 535: 61-65.
2. Weedon, M.N., et al. 2008. Genome-wide association analysis identifies 20 loci that influence adult height. Nat. Genet. 40: 575-583.
3. Gudbjartsson, D.F., et al. 2008. Many sequence variants affecting diversity of adult human height. Nat. Genet. 40: 609-615.
4. Sovio, U., et al. 2009. Genetic determinants of height growth assessed longitudinally from infancy to adulthood in the northern Finland birth cohort 1966. PLoS Genet. 5: e1000409.
5. Soranzo, N., et al. 2009. Meta-analysis of genome-wide scans for human adult stature identifies novel loci and associations with measures of skeletal frame size. PLoS Genet. 5: e1000445.
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CHROMOSOMAL LOCATION

Genetic locus: LCORL (human) mapping to 4p15.31.

PRODUCT

LCORL 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see LCORL shRNA Plasmid (h): sc-89132-SH and LCORL shRNA (h) Lentiviral Particles: sc-89132-V as alternate gene silencing products.

For independent verification of LCORL (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-89132A, sc-89132B and sc-89132C.

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

LCORL siRNA (h) is recommended for the inhibition of LCORL 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 LCORL gene expression knockdown using RT-PCR Primer: LCORL (h)-PR: sc-89132-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.