SANTA CRUZ BIOTECHNOLOGY, INC.

LBH siRNA (m): sc-146661

BACKGROUND

LBH (limb bud and heart development homolog) is a 105 amino acid homolog of the mouse Lbh protein that functions in transcriptional regulation. Localized to the nucleus and expressed in tissues throughout the body, LBH is thought to positively modulate cardiac transcription factors, thereby activating transcription of cardiac-related genes and controlling normal heart development. Deregulation of LBH is associated with partial trisomy 2p syndrome, a disorder that includes congenital heart disease (CHD) and is characterized by defects in cardiac septation, abnormal ventricular development and complex malformations of the outflow and inflow tracts of the heart. LBH contains a C-terminal acidic glutamate-rich domain, an N-terminal hydrophobic region and a putative nuclear localization signal.

REFERENCES

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2. Briegel, K.J. and Joyner, A.L. 2001. Identification and characterization of LBH, a novel conserved nuclear protein expressed during early limb and heart development. Dev. Biol. 233: 291-304.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611763. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Briegel, K.J., Baldwin, H.S., Epstein, J.A. and Joyner, A.L. 2005. Congenital heart disease reminiscent of partial trisomy 2p syndrome in mice transgenic for the transcription factor LBH. Development 132: 3305-3316.
5. Ai, J., Wang, Y., Tan, K., Deng, Y., Luo, N., Yuan, W., Wang, Z., Li, Y., Wang, Y., Mo, X., Zhu, C., Yin, Z., Liu, M. and Wu, X. 2008. A human homolog of mouse Lbh gene, hLBH, expresses in heart and activates SRE and AP-1 mediated MAPK signaling pathway. Mol. Biol. Rep. 35: 179-87.

CHROMOSOMAL LOCATION

Genetic locus: Lbh (mouse) mapping to 17 E1.3.

PRODUCT

LBH 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 LBH shRNA Plasmid (m): sc-146661-SH and LBH shRNA (m) Lentiviral Particles: sc-146661-V as alternate gene silencing products.

For independent verification of LBH (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-146661A, sc-146661B and sc-146661C.

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

LBH siRNA (m) is recommended for the inhibition of LBH 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 LBH gene expression knockdown using RT-PCR Primer: LBH (m)-PR: sc-146661-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.