

Bcl-9L siRNA (h): sc-96389

BACKGROUND

Bcl-9L (B-cell CLL/lymphoma 9-like), also known as DLNB11, is a 1,499 amino acid protein that localizes to the nucleus and contains a specialized C-terminal domain that is important for its overall activity. Expressed in breast tissue, as well as in eye, lung, prostate and various carcinomas, Bcl-9L functions as a transcriptional activator that forms a complex with Parafibromin and β -catenin and is thought to promote the transcriptional activity of Parafibromin and enhance the neoplastic transforming activity of β -catenin. Bcl-9L exists as multiple alternatively spliced isoforms and is thought to be involved in tumorigenesis, possibly playing a role in tumor transformation and metastasis. The gene encoding Bcl-9L maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that map to chromosome 11.

REFERENCES

1. Katoh, M. and Katoh, M. 2003. Identification and characterization of human Bcl-9L gene and mouse Bcl9l gene in silico. *Int. J. Mol. Med.* 12: 643-649.
2. Adachi, S., Jigami, T., Yasui, T., Nakano, T., Ohwada, S., Omori, Y., Sugano, S., Ohkawara, B., Shibuya, H., Nakamura, T. and Akiyama, T. 2004. Role of a Bcl-9-related β -catenin-binding protein, B9L, in tumorigenesis induced by aberrant activation of Wnt signaling. *Cancer Res.* 64: 8496-8501.
3. Brembeck, F.H., Schwarz-Romond, T., Bakkers, J., Wilhelm, S., Hammerschmidt, M. and Birchmeier, W. 2004. Essential role of Bcl9-2 in the switch between β -catenin's adhesive and transcriptional functions. *Genes Dev.* 18: 2225-2230.
4. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 609004. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Katoh, Y. and Katoh, M. 2005. Identification and characterization of rat Bcl9l gene in silico. *Int. J. Oncol.* 26: 835-840.
6. Sampietro, J., Dahlberg, C.L., Cho, U.S., Hinds, T.R., Kimelman, D. and Xu, W. 2006. Crystal structure of a β -catenin/Bcl9/Tcf4 complex. *Mol. Cell* 24: 293-300.
7. Sakamoto, I., Ohwada, S., Toya, H., Togo, N., Kashiwabara, K., Oyama, T., Nakajima, T., Ito, H., Adachi, S., Jigami, T. and Akiyama, T. 2007. Up-regulation of a Bcl9-related β -catenin-binding protein, B9L, in different stages of sporadic colorectal adenoma. *Cancer Sci.* 98: 83-87.

CHROMOSOMAL LOCATION

Genetic locus: BCL9L (human) mapping to 11q23.3.

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.

PRODUCT

Bcl-9L 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 Bcl-9L shRNA Plasmid (h): sc-96389-SH and Bcl-9L shRNA (h) Lentiviral Particles: sc-96389-V as alternate gene silencing products.

For independent verification of Bcl-9L (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-96389A, sc-96389B and sc-96389C.

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

Bcl-9L siRNA (h) is recommended for the inhibition of Bcl-9L 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 Bcl-9L gene expression knockdown using RT-PCR Primer: Bcl-9L (h)-PR: sc-96389-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.