SANTA CRUZ BIOTECHNOLOGY, INC.

Bcl-9L siRNA (m): sc-105118

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 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 maps to chromosome 11.

REFERENCES

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3. Brembeck, F.H., et al. 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/
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6. Sampietro, J., et al. 2006. Crystal structure of a β-catenin/BCL9/Tcf4 complex. Mol. Cell 24: 293-300.
7. Sakamoto, I., et al. 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 (mouse) mapping to 9 A5.2.

PRODUCT

Bcl-9L 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 Bcl-9L shRNA Plasmid (m): sc-105118-SH and Bcl-9L shRNA (m) Lentiviral Particles: sc-105118-V as alternate gene silencing products.

For independent verification of Bcl-9L (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-105118A, sc-105118B and sc-105118C.

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

Bcl-9L siRNA (m) is recommended for the inhibition of Bcl-9L 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 Bcl-9L gene expression knockdown using RT-PCR Primer: Bcl-9L (m)-PR: sc-105118-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.