

Bcl-9 siRNA (m): sc-72630

BACKGROUND

Bcl-9 (B-cell CLL/lymphoma 9 protein) is a nuclear protein encoded by the human gene Bcl9. Bcl-9 belongs to the BCL9 family and is involved in the Wnt signaling pathway. The Wnt signaling pathway controls numerous cell fates during animal development. A malfunction in Wnt signaling activity can lead to cancer in many human tissues. A key effector of the canonical Wnt pathway is β -catenin (or *Drosophila* Armadillo), a highly unstable phosphorylated protein that shuttles rapidly between nucleus and cytoplasm. A nuclear complex, consisting of Bcl-9/Bcl-9L, β -catenin and other proteins, activates transcription of several Wnt target genes, including FGF-20, WISP-1, Myc, and Glucagon.

REFERENCES

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3. Hoffmans, R., et al. 2006. BCL9-2 binds Arm/ β -catenin in a Tyr142-independent manner and requires Pygopus for its function in Wg/Wnt signaling. *Mech. Dev.* 124: 59-67.
4. Sakamoto, I., et al. 2007. Up-regulation of a Bcl-9-related β -catenin-binding protein, B9L, in different stages of sporadic colorectal adenoma. *Cancer Sci.* 98: 83-87.
5. de la Roche, M., et al. 2007. Wingless-independent association of Pygopus with dTCF target genes. *Curr. Biol.* 17: 556-561.
6. Nakamura, Y., et al. 2007. Crystal structure analysis of the PHD domain of the transcription co-activator Pygopus. *J. Mol. Biol.* 370: 80-92.
7. Katoh, M., et al. 2007. Wnt signaling pathway and stem cell signaling network. *Clin. Cancer Res.* 13: 4042-4045.

CHROMOSOMAL LOCATION

Genetic locus: Bcl9 (mouse) mapping to 3 F2.1.

PRODUCT

Bcl-9 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Bcl-9 shRNA Plasmid (m): sc-72630-SH and Bcl-9 shRNA (m) Lentiviral Particles: sc-72630-V as alternate gene silencing products.

For independent verification of Bcl-9 (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-72630A, sc-72630B and sc-72630C.

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 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-9 siRNA (m) is recommended for the inhibition of Bcl-9 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 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-9 gene expression knockdown using RT-PCR Primer: Bcl-9 (m)-PR: sc-72630-PR (20 μ l). 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.