SANTA CRUZ BIOTECHNOLOGY, INC.

Bcl-6b siRNA (h): sc-94148



BACKGROUND

Bcl-6, a transcriptional repressor, binds Stat recognition-like DNA elements and influences germinal center development and cell differentiation. Additionally, Bcl-6 negatively regulates NF κ B expression, thereby inhibiting NF κ B mediated cellular functions. Bcl-6b (B-cell CLL/lymphoma 6, member B), also known as ZNF62, BAZF or ZBTB28, is a 480 amino acid nuclear protein that contains one BTB (POZ) domain and five C₂H₂-type zinc fingers. Expressed ubiquitously with highest expression in placenta and heart, Bcl-6b associates with Bcl-6 and functions as a sequence-specific transcriptional repressor that is thought to be necessary for early B-cell development. The gene encoding Bcl-6b maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes.

REFERENCES

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- 2. Okabe, S., et al. 1998. BAZF, a novel Bcl-6 homolog, functions as a transcriptional repressor. Mol. Cell. Biol. 18: 4235-4244.
- Fitzgibbon, J., et al. 2000. Assignment of B-cell lymphoma 6, member B (zinc finger protein) gene (Bcl-6b) to human chromosome 17p13.1 by *in situ* hybridization. Cytogenet. Cell Genet. 89: 218-219.
- Sakashita, C., et al. 2002. Cloning and characterization of the human BAZF gene, a homologue of the Bcl-6 oncogene. Biochem. Biophys. Res. Commun. 291: 567-573.
- 5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608992. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Takenaga, M., et al. 2003. Bcl-6-dependent transcriptional repression by BAZF. Biochem. Biophys. Res. Commun. 303: 600-608.
- 7. Takamori, M., et al. 2004. BAZF is required for activation of naive CD4 T cells by TCR triggering. Int. Immunol. 16: 1439-1449.

CHROMOSOMAL LOCATION

Genetic locus: BCL6B (human) mapping to 17p13.1.

PRODUCT

Bcl-6b 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-6b shRNA Plasmid (h): sc-94148-SH and Bcl-6b shRNA (h) Lentiviral Particles: sc-94148-V as alternate gene silencing products.

For independent verification of BcI-6b (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-94148A, sc-94148B and sc-94148C.

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-6b siRNA (h) is recommended for the inhibition of Bcl-6b 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 BcI-6b gene expression knockdown using RT-PCR Primer: BcI-6b (h)-PR: sc-94148-PR (20 μ I). 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.