SANTA CRUZ BIOTECHNOLOGY, INC.

Bcl-8 siRNA (h): sc-90162

BACKGROUND

Bcl-8 (B-cell CLL/lymphoma 8) is a 100 amino acid protein that is expressed in prostate and testis. The Bcl-8 family provides examples of both types of segmental duplication: interchromosomal and intrachromosomal. A chromosomal aberration involving Bcl-8 exists in diffuse large cell lymphoma (DLCL). The Bcl-8/IgH translocation leaves the coding region of Bcl-8 intact, but may have pathogenic effects due to alterations in the expression level of Bcl-8. The Bcl-8 gene is not normally expressed in lymphoid tissues, but its expression can be activated by chromosomal translocation or by other mechanisms in DLCL. The Bcl-8 gene maps to human chromosome 15q11.2 Translocations involving 15q11-13 also are found in non-lymphoid tumors. The 15q11-13 region is implicated in genomic imprinting and contains putative genes for the imprinting-related disorders, Prader-Willi syndrome and Angelman syndrome.

REFERENCES

1. Dyomin, V.G., et al. 1997. BCL8, a novel gene involved in translocations affecting band 15q11-13 in diffuse large-cell lymphoma. Proc. Natl. Acad. Sci. USA 94: 5728-5732.
2. Online Mendelian Inheritance in Man, OMIM™. 1997. Johns Hopkins University, Baltimore, MD. MIM Number: 601889. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Goossens, T., et al. 1998. Frequent occurrence of deletions and duplications during somatic hypermutation: implications for oncogene translocations and heavy chain disease. Proc. Natl. Acad. Sci. USA 95: 2463-2468.
4. Arber, D.A. 2000. Molecular diagnostic approach to non-Hodgkin's lymphoma. J. Mol. Diagn. 2: 178-190.
5. Butler, M.P., et al. 2002. Alternative translocation breakpoint cluster region 5' to Bcl-6 in B-cell non-Hodgkin's lymphoma. Cancer Res. 62: 4089-4094.
6. Dyomin, V.G., et al. 2002. Bcl8 is a novel, evolutionarily conserved human gene family encoding proteins with presumptive protein kinase A anchoring function. Genomics 80: 158-165.

CHROMOSOMAL LOCATION

Genetic locus: NBEAP1 (human) mapping to 15p13.

PRODUCT

Bcl-8 siRNA (h) is a pool of 2 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-8 shRNA Plasmid (h): sc-90162-SH and Bcl-8 shRNA (h) Lentiviral Particles: sc-90162-V as alternate gene silencing products.

For independent verification of Bcl-8 (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-90162A and sc-90162B.

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-8 siRNA (h) is recommended for the inhibition of Bcl-8 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 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-8 gene expression knockdown using RT-PCR Primer: Bcl-8 (h)-PR: sc-90162-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.