SANTA CRUZ BIOTECHNOLOGY, INC.

BCoR siRNA (m): sc-72636

BACKGROUND

Bcl-6, a transcriptional repressor, can promote or inhibit apoptosis depending on the cell type and also plays an important role in normal immune responses. Bcl-6 negatively regulates NFκB expression, thereby inhibiting NFκB-mediated cellular functions and is frequently found to be deregulated in non-Hodgkin's lymphoma. BCoR (Bcl-6 corepressor) is a 1,755 amino acid protein that associates with histone deacetylases (HDACs) to transcriptionally repress Bcl-6. With ubiquitous expression, BCoR is localized to the nucleus where it interacts with other proteins through its three ANK repeat domains. Mutations in the gene encoding BCoR result in microphthalmia with associated anomalies 2, also known as anophthalmia, which is characterized by variable features, such as renal aplasia, mental retardation, hyospadias, microencephaly and cryptorchidism. There are four isoforms of BCoR which are produced as a result of alternative splicing events.

REFERENCES

1. Huynh, K.D., et al. 2000. BCoR, a novel corepressor involved in Bcl-6 repression. Genes Dev. 14: 1810-1823.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 300166. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Ng, D., et al. 2004. Oculofaciocardiodental and Lenz microphthalmia syndromes result from distinct classes of mutations in BCoR. Nat. Genet. 36: 411-416.
4. Gearhart, M.D., et al. 2006. Polycomb group and SCF ubiquitin ligases are found in a novel BCoR complex that is recruited to Bcl-6 targets. Mol. Cell. Biol. 26: 6880-6889.
5. Martínez-Garay, I., et al. 2007. A two base pair deletion in the PQBP1 gene is associated with microphthalmia, microcephaly, and mental retardation. Eur. J. Hum. Genet. 15: 29-34.

CHROMOSOMAL LOCATION

Genetic locus: Bcor (mouse) mapping to X A1.1.

PRODUCT

BCoR 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 BCoR shRNA Plasmid (m): sc-72636-SH and BCoR shRNA (m) Lentiviral Particles: sc-72636-V as alternate gene silencing products.

For independent verification of BCoR (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-72636A, sc-72636B and sc-72636C.

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 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

BCoR siRNA (m) is recommended for the inhibition of BCoR 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 BCoR gene expression knockdown using RT-PCR Primer: BCoR (m)-PR: sc-72636-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.