



BCORL1 siRNA (m): sc-141680

BACKGROUND

BCORL1 (Bcl-6 corepressor-like protein 1) is a 1,711 amino acid protein that belongs to the BCOR family. Existing as three alternatively spliced isoforms, BCORL1 can act as a transcriptional corepressor when tethered to DNA. BCORL1 may specifically inhibit gene expression when recruited to promoter regions by sequence specific DNA-binding proteins, such as Bcl-6. This repression may be mediated at least in part by histone deacetylase activities, which can associate with this corepressor. BCORL1 contains a putative bipartite nuclear localization signal, three tandem ankyrin repeats and a classic CTBP-binding motif, PXDLS. Highest expression of BCORL1 is found in testis and prostate, medium expression in lymphocytes, peripheral blood leukocytes and spleen, and lowest expression in other tissues. The BCORL1 gene contains thirteen exons, maps to human chromosome Xq25 and has been reported to be dysregulated in breast cancer subjects.

REFERENCES

1. Strausberg, R.L., et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. *Proc. Natl. Acad. Sci. USA* 99: 16899-16903.
2. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. *Nat. Genet.* 36: 40-45.
3. Moore, S.D., et al. 2006. ELF4 is fused to ERG in a case of acute myeloid leukemia with a t(X;21)(q25-26;q22). *Leuk. Res.* 30: 1037-1042.
4. Lose, F., et al. 2007. BCORL1 variation and breast cancer. *Breast Cancer Res.* 9: R54.
5. Pagan, J.K., et al. 2007. A novel corepressor, BCORL1, represses transcription through an interaction with CtBP. *J. Biol. Chem.* 282: 15248-15257.
6. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 300688. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Ricks, C.B., et al. 2010. Delineation of a 1.65 Mb critical region for hemi-hyperplasia and digital anomalies on Xq25. *Am. J. Med. Genet. A* 152A: 453-458.
8. SWISS-PROT/TrEMBL (Q5H9F3). World Wide Web URL: <http://www.uniprot.org/uniprot/Q5H9F3>

CHROMOSOMAL LOCATION

Genetic locus: Bcorl1 (mouse) mapping to X A4.

PRODUCT

BCORL1 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 BCORL1 shRNA Plasmid (m): sc-141680-SH and BCORL1 shRNA (m) Lentiviral Particles: sc-141680-V as alternate gene silencing products.

For independent verification of BCORL1 (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-141680A, sc-141680B and sc-141680C.

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

BCORL1 siRNA (m) is recommended for the inhibition of BCORL1 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 BCORL1 gene expression knockdown using RT-PCR Primer: BCORL1 (m)-PR: sc-141680-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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.