# BCoR (N-19): sc-68961



The Power to Question

### **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 NF $\kappa$ B expression, thereby inhibiting NF $\kappa$ B-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**

- Huynh, K.D., Fischle, W., Verdin, E. and Bardwell, V.J. 2000. BCoR, a novel corepressor involved in Bcl-6 repression. Genes Dev. 14: 1810-1823.
- 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/
- Ng, D., Thakker, N., Corcoran, C.M., Donnai, D., Perveen, R., Schneider, A., Hadley, D.W., Tifft, C., Zhang, L., Wilkie, A.O., van der Smagt, J.J., Gorlin, R.J., Burgess, S.M., Bardwell, V.J., Black, G.C. and Biesecker, L.G. 2004. Oculofaciocardiodental and Lenz microphthalmia syndromes result from distinct classes of mutations in BCoR. Nat. Genet. 36: 411-416.
- Gearhart, M.D., Corcoran, C.M., Wamstad, J.A. and Bardwell, V.J. 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.
- Martínez-Garay, I., Tomás, M., Oltra, S., Ramser, J., Moltó, M.D., Prieto, F., Meindl, A., Kutsche, K. and Martínez, F. 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.
- Sánchez, C., Sánchez, I., Demmers, J.A., Rodriguez, P., Strouboulis, J. and Vidal, M. 2007. Proteomics analysis of RING1B/RNF2 interactors identifies a novel complex with the FBXL10/JHDM1B histone demethylase and the Bcl-6 interacting corepressor. Mol. Cell. Proteomics 6: 820-834.
- 7. Ghetu, A.F., Corcoran, C.M., Cerchietti, L., Bardwell, V.J., Melnick, A. and Privé, G.G. 2008. Structure of a BCoR corepressor peptide in complex with the Bcl-6 BTB domain dimer. Mol. Cell 29: 384-391.
- 8. Wamstad, J.A., Corcoran, C.M., Keating, A.M. and Bardwell, V.J. 2008. Role of the transcriptional corepressor BCoR in embryonic stem cell differentiation and early embryonic development. PLoS ONE 3: e2814.

# **CHROMOSOMAL LOCATION**

Genetic locus: BCOR (human) mapping to Xp11.4; Bcor (mouse) mapping to X A1.1.

#### **SOURCE**

BCoR (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of BCoR of human origin.

### **PRODUCT**

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-68961 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-68961 X, 200  $\mu g/0.1$  ml.

### **APPLICATIONS**

BCoR (N-19) is recommended for detection of BCoR of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

BCoR (N-19) is also recommended for detection of BCoR in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for BCoR siRNA (h): sc-72635, BCoR siRNA (m): sc-72636, BCoR shRNA Plasmid (h): sc-72635-SH, BCoR shRNA Plasmid (m): sc-72636-SH, BCoR shRNA (h) Lentiviral Particles: sc-72635-V and BCoR shRNA (m) Lentiviral Particles: sc-72636-V.

BCoR (N-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of BCoR: 192 kDa.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## **STORAGE**

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**Santa Cruz Biotechnology, Inc.** 1.800.457.3801 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**