

Bcl-11a/b (C-19): sc-33096

BACKGROUND

Bcl-11a (CtlP-1, EVI9, B cell CLL/lymphoma 11A) and Bcl-11b (CtlP-2, RIT1, B cell CLL/lymphoma 11B) genes play crucial roles in lymphopoiesis and influence the progression of hematopoietic malignancies. Disruption of the Bcl-11b (B cell chronic lymphocytic leukemia/lymphoma 11B) locus is linked to T cell acute lymphoblastic leukemia and the loss of heterozygosity in mice results in T cell lymphoma. Bcl-11 proteins are related C₂H₂ zinc-finger transcription factors that act as transcriptional repressors. Bcl-11b can interact with the metastasis-associated proteins MTA1 and MTA2 through the amino-terminal region. Bcl-11a is essential for postnatal development and normal lymphopoiesis. The Bcl-11a mouse gene is a common site of retroviral integration in myeloid leukemia, and may function as a leukemia disease gene, in part, through its interaction with Bcl-6.

REFERENCES

1. Dyer, M.J., et al. 2002. The configuration of the immunoglobulin genes in B cell chronic lymphocytic leukemia. *Leukemia* 16: 973-984.
2. Avram, D., et al. 2002. COUP-TF (chicken ovalbumin upstream promoter transcription factor)-interacting protein 1 (CTIP1) is a sequence-specific DNA binding protein. *Biochem. J.* 368: 555-563.
3. Durum, S.K. 2003. Bcl-11: sibling rivalry in lymphoid development. *Nat. Immunol.* 4: 512-514.
4. Liu, P., et al. 2003. Bcl-11a is essential for normal lymphoid development. *Nat. Immunol.* 4: 525-532.
5. Nagel, S., et al. 2003. The cardiac homeobox gene Nkx2.5 is deregulated by juxtaposition with Bcl-11b in pediatric T-ALL cell lines via a novel t(5;14)(q35.1;q32.2). *Cancer Res.* 63: 5329-5334.
6. Togashi, T., et al. 2004. Two distinct methods analyzing chromatin structure using centrifugation and antibodies to modified Histone H3: both provide similar chromatin states of the Rit1/Bcl-11b gene. *Biochem. Biophys. Res. Commun.* 313: 489-495.
7. Sakata, J., et al. 2004. Involvement of V(D)J recombinase in the generation of intragenic deletions in the Rit1/Bcl-11b tumor suppressor gene in γ -ray-induced thymic lymphomas and in normal thymus of the mouse. *Carcinogenesis* 25: 1069-1075.
8. Senawong, T., et al. 2005. Bcl-11a-dependent recruitment of SIRT1 to a promoter template in mammalian cells results in histone deacetylation and transcriptional repression. *Arch. Biochem. Biophys.* 434: 316-325.

CHROMOSOMAL LOCATION

Genetic locus: BCL11A (human) mapping to 2p16.1, BCL11B (human) mapping to 14q32.2; Bcl11a (mouse) mapping to 11 A3.2, Bcl11b (mouse) mapping to 12 F1.

SOURCE

Bcl-11a/b (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Bcl-11b of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-33096 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Bcl-11a/b (C-19) is recommended for detection of Bcl-11b and Bcl-11a of mouse, rat 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); may cross-react with CCDC37.

Bcl-11a/b (C-19) is also recommended for detection of Bcl-11a and Bcl-11b in additional species, including canine, bovine, porcine and avian.

Molecular Weight of Bcl-11a/b: 96 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, K-562 nuclear extract: sc-2130 or THP-1 nuclear extract: sc-24963.

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) or donkey anti-goat IgG-TR: sc-2783 (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.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **Bcl-11a (H-1): sc-514842** or **Bcl-11b (F-4): sc-365320**, our highly recommended monoclonal alternatives to Bcl-11a/b (C-19).