

# Bcl-11a/b (Q-19): sc-33095

## 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 C<sub>2</sub>H<sub>2</sub> 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.

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

## PRODUCT

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

Blocking peptide available for competition studies, sc-33095 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

Bcl-11a/b (Q-19) is recommended for detection of Bcl-11a and Bcl-11b of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

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

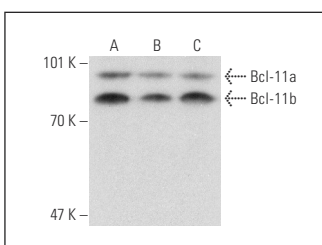
Molecular Weight of Bcl-11a/b: 96 kDa.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



Bcl-11b (Q-19): sc-33095. Western blot analysis of Bcl-11b expression in THP-1 (A), K-562 (B) and Jurkat (C) nuclear extracts.

## STORAGE

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

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