

Bcl-11a (H-1): sc-514842

BACKGROUND

Bcl-11a (CtIP-1, EVI9, B cell chronic lymphocytic leukemia (CLL)/lymphoma 11A) and Bcl-11b (CtIP-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 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. Bcl11: sibling rivalry in lymphoid development. *Nat. Immunol.* 4: 512-514.
4. Nagel, S., et al. 2003. The cardiac homeobox gene NKX2-5 is deregulated by juxtaposition with Bcl11b in pediatric T-ALL cell lines via a novel t(5;14)(q35.1;q32.2). *Cancer Res.* 63: 5329-5334.

CHROMOSOMAL LOCATION

Genetic locus: BCL11A (human) mapping to 2p16.1; Bcl11a (mouse) mapping to 11 A3.2.

SOURCE

Bcl-11a (H-1) is a mouse monoclonal antibody raised against amino acids 505-620 mapping within an internal region of Bcl-11a of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Bcl-11a (H-1) is available conjugated to agarose (sc-514842 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514842 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514842 PE), fluorescein (sc-514842 FITC), Alexa Fluor® 488 (sc-514842 AF488), Alexa Fluor® 546 (sc-514842 AF546), Alexa Fluor® 594 (sc-514842 AF594) or Alexa Fluor® 647 (sc-514842 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514842 AF680) or Alexa Fluor® 790 (sc-514842 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

Bcl-11a (H-1) is recommended for detection of Bcl-11a of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Bcl-11a siRNA (h): sc-43578, Bcl-11a siRNA (m): sc-44935, Bcl-11a shRNA Plasmid (h): sc-43578-SH, Bcl-11a shRNA Plasmid (m): sc-44935-SH, Bcl-11a shRNA (h) Lentiviral Particles: sc-43578-V and Bcl-11a shRNA (m) Lentiviral Particles: sc-44935-V.

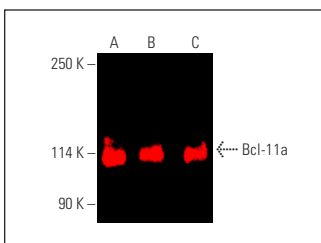
Molecular Weight of Bcl-11a isoforms XL/L/S/XS: 125/100/35/25 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, Daudi cell lysate: sc-2415 or NAMALWA cell lysate: sc-2234.

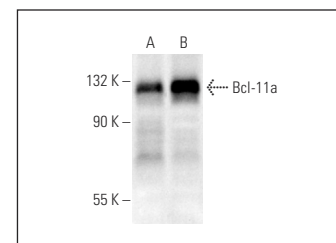
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Bcl-11a (H-1): sc-514842. Near-Infrared western blot analysis of Bcl-11a expression in NAMALWA (A), Raji (B) and Daudi (C) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG_{2a} BP-CFL 790: sc-542740.



Bcl-11a (H-1) HRP: sc-514842 HRP. Direct western blot analysis of Bcl-11a expression in NAMALWA (A) and Raji (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Alpsy, A. and Dykhuizen, E.C. 2018. Glioma tumor suppressor candidate region gene 1 (GLTSCR1) and its paralog GLTSCR1-like form SWI/SNF chromatin remodeling subcomplexes. *J. Biol. Chem.* 293: 3892-3903.
2. Petsalaki, E., et al. 2018. The ESCRT protein Chmp4c regulates mitotic spindle checkpoint signaling. *J. Cell Biol.* 217: 861-876.

STORAGE

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