

# Bcl10 (H-2): sc-55511

## BACKGROUND

Bcl10, also designated CIPER, c-CARMEN and mE10, was first identified as a gene truncated or mutated in MALT B cell lymphomas and other tumor types. Bcl10 is homologous to the equine herpes virus-2 E10 gene, and like E10 it contains an amino-terminal caspase recruitment domain (CARD). Expression of Bcl10 was shown to induce NFκB activation in a NIK-dependent pathway, and the CARD domain was shown to be essential for this activation. In a separate study, Bcl10 by itself did not induce JNK or NFκB activation. Overexpression of Bcl10 was shown to induce apoptosis, in a manner that was dependent on CARD-mediated oligomerization. Bcl10 was also shown to play a role in processing of caspase-9 to its active dimer. Other studies have shown that Bcl10 is not mutated in many human tumors and lymphomas.

## REFERENCES

1. Ye, H., et al. 2000. Bcl10 expression in normal and neoplastic lymphoid tissue. Nuclear localization in MALT lymphoma. *Am. J. Pathol.* 157: 1147-1154.
2. Ruland, J., et al. 2001. Bcl10 is a positive regulator of antigen receptor-induced activation of NFκB and neural tube closure. *Cell* 104: 33-42.
3. Lucas, P.C., et al. 2001. Bcl10 and MALT1, independent targets of chromosomal translocation in malt lymphoma, cooperate in a novel NFκB signaling pathway. *J. Biol. Chem.* 276: 19012-19019.
4. Yui, D., et al. 2001. Interchangeable binding of Bcl10 to TRAF2 and cIAPs regulates apoptosis signaling. *Oncogene* 20: 4317-4323.
5. Thome, M., et al. 2002. Bcl10. *Curr. Biol.* 12: R45.
6. Zhou, H., et al. 2004. Bcl10 activates the NFκB pathway through ubiquitination of NEMO. *Nature* 427: 167-171.
7. Fischer, K.D., et al. 2004. New roles for Bcl10 in B-cell development and LPS response. *Trends Immunol.* 25: 113-116.

## CHROMOSOMAL LOCATION

Genetic locus: BCL10 (human) mapping to 1p22.3; Bcl10 (mouse) mapping to 3 H2.

## SOURCE

Bcl10 (H-2) is a mouse monoclonal antibody raised against amino acids 1-197 mapping at the N-terminus of Bcl10 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## 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.

## APPLICATIONS

Bcl10 (H-2) is recommended for detection of Bcl10 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 Bcl10 siRNA (h): sc-29793, Bcl10 siRNA (m): sc-29794, Bcl10 shRNA Plasmid (h): sc-29793-SH, Bcl10 shRNA Plasmid (m): sc-29794-SH, Bcl10 shRNA (h) Lentiviral Particles: sc-29793-V and Bcl10 shRNA (m) Lentiviral Particles: sc-29794-V.

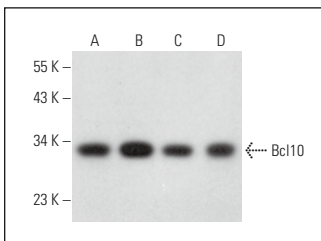
Molecular Weight of Bcl10: 33 kDa.

Positive Controls: Bcl10 (h): 293T Lysate: sc-116437, Hep G2 cell lysate: sc-2227 or Daudi cell lysate: sc-2415.

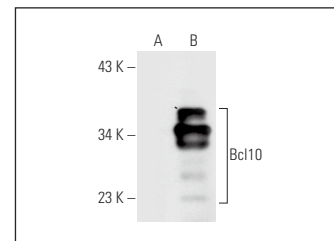
## RECOMMENDED SUPPORT REAGENTS

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



Bcl10 (H-2): sc-55511. Western blot analysis of Bcl10 expression in GA-10 (A), Daudi (B), U-698-M (C) and Hep G2 (D) whole cell lysates.



Bcl10 (H-2): sc-55511. Western blot analysis of Bcl10 expression in non-transfected: sc-117752 (A) and human Bcl10 transfected: sc-116437 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Hong, T., et al. 2024. PARP9 knockdown confers protection against chemoresistance and immune escape of breast cancer cells by blocking the PI3K/AKT pathway. *Arch. Med. Sci.* 20: 1228-1248.



See **Bcl10 (331.3): sc-5273** for Bcl10 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.