

Bcl10 (151): sc-56023

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. Yui, D., et al. 2001. Interchangeable binding of Bcl10 to TRAF2 and cIAPs regulates apoptosis signaling. *Oncogene* 20: 4317-4323.
4. Thome, M., et al. 2002. Bcl10. *Curr. Biol.* 12: R45.
5. Zhou, H., et al. 2004. Bcl10 activates the NFκB pathway through ubiquitination of NEMO. *Nature* 427: 167-171.
6. Fischer, K.D., et al. 2004. New roles for Bcl10 in B-cell development and LPS response. *Trends Immunol.* 25: 113-116.
7. Liu, Y., et al. 2004. BCL10 mediates lipopolysaccharide/toll-like receptor-4 signaling through interaction with Pellino2. *J. Biol. Chem.* 279: 37436-37444.
8. Ye, H. et al. 2005. MALT lymphoma with t(14;18)(q32;q21)/IGH-MALT1 is characterized by strong cytoplasmic MALT1 and BCL10 expression. *J. Pathol.* 205: 293-301.

CHROMOSOMAL LOCATION

Genetic locus: BCL10 (human) mapping to 1p22.3.

SOURCE

Bcl10 (151) is a mouse monoclonal antibody raised against amino acids 122-168 of Bcl10 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ 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.

APPLICATIONS

Bcl10 (151) is recommended for detection of Bcl10 of 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Bcl10 siRNA (h): sc-29793, Bcl10 shRNA Plasmid (h): sc-29793-SH and Bcl10 shRNA (h) Lentiviral Particles: sc-29793-V.

Molecular Weight of Bcl10: 33 kDa.

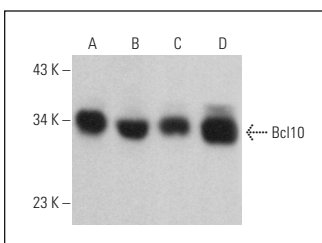
Positive Controls: MOLT-4 cell lysate: sc-2233, NAMALWA cell lysate: sc-2234 or MCF7 whole cell lysate: sc-2206.

RECOMMENDED SUPPORT REAGENTS

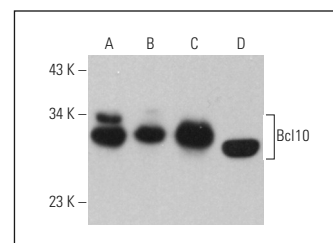
To ensure optimal results, the following support reagents are recommended:

- 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, 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 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 (151): sc-56023. Western blot analysis of Bcl10 expression in NAMALWA (A), MOLT-4 (B), MCF7 (C) and Raji (D) whole cell lysates.



Bcl10 (151): sc-56023. Western blot analysis of Bcl10 expression in Raji (A), K-562 (B) and IB4 (C) whole cell lysates and rat liver tissue extract (D).

RESEARCH USE

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

PROTOCOLS

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



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