SANTA CRUZ BIOTECHNOLOGY, INC.

Bcl10 (4F8E8H8): sc-32808

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 cLAPs regulates apoptosis signaling. Oncogene 20: 4317-4323.
4. 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.
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.
8. Liu, Y., et al. 2004. BCL10 mediates lipopolysaccharide/toll-like receptor-4 signaling through interaction with Pellino2. J. Biol. Chem. 279: 37436-37444.

CHROMOSOMAL LOCATION

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

SOURCE

Bcl10 (4F8E8H8) is a mouse monoclonal antibody raised against recombinant Bcl10 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 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 (4F8E8H8) is recommended for detection of Bcl10 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range), 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), immunohistochemistry (including paraffin-embedded sections) (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.

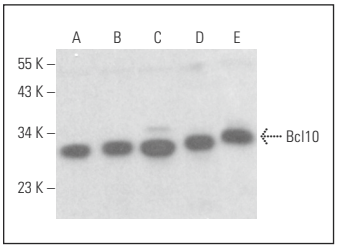
Molecular Weight of Bcl10: 33 kDa.

Positive Controls: Ramos cell lysate: sc-2216, BYDP whole cell lysate: sc-364368 or RAW 264.7 whole cell lysate: sc-2211.

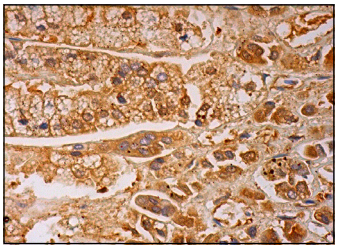
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Bcl10 (4F8E8H8): sc-32808. Western blot analysis of Bcl10 expression in MM142 (**A**), BYDP (**B**), RAW 264.7 (**C**), IB4 (**D**) and Ramos (**E**) whole cell lysates.



Bcl10 (4F8E8H8): sc-32808. Immunoperoxidase stain-ing of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells.

RESEARCH USE

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

CONJUGATES

See **Bcl10 (331.3): sc-5273** for Bcl10 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.