SANTA CRUZ BIOTECHNOLOGY, INC.

Bcl10 (C-17): sc-9560

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.

CHROMOSOMAL LOCATION

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

SOURCE

Bcl10 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Bcl10 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-9560 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Bcl10 (C-17) is recommended for detection of Bcl10 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), 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: K-562 whole cell lysate: sc-2203, HuT 78 whole cell lysate: sc-2208 or MOLT-4 cell lysate: sc-2233.

RESEARCH USE

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

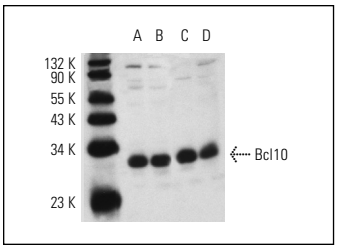
PROTOCOLS

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

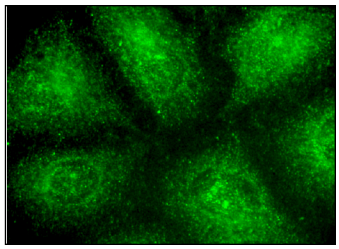
STORAGE

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

DATA



Bcl10 (C-17): sc-9560. Western blot analysis of Bcl10 expression in Hut 78 (**A**), K-562 (**B**), NAMALWA (**C**) and MOLT-4 (**D**) whole cell lysates.



Bcl10 (C-17): sc-9560. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

SELECT PRODUCT CITATIONS

1. Scharschmidt, E., et al. 2004. Degradation of Bcl10 induced by T-cell activation negatively regulates NFκB signaling. Mol. Cell. Biol. 24: 3860-3873.
2. Kuo, S.H., et al. 2004. Nuclear expression of Bcl10 or nuclear factor κB predicts *Helicobacter pylori*-independent status of early-stage, high-grade gastric mucosa-associated lymphoid tissue lymphomas. J. Clin. Oncol. 22: 3491-3497.
3. Chang, H.H., et al. 2009. Expression of BCL10 is significantly associated with the progression and prognosis of oral squamous cell carcinomas in Taiwan. Oral Oncol. 45: 589-593.
4. Palkowitsch, L., et al. 2011. The Ca^{2+}-dependent phosphatase calcineurin controls the formation of the Carma1-Bcl10-Malt1 complex during T cell receptor-induced NF-κB activation. J. Biol. Chem. 286: 7522-7534.
5. Kuo, S.H., et al. 2011. Establishment of a novel MALT lymphoma cell line, ma-1, from a patient with t(14;18)(q32;q21)-positive *Helicobacter pylori*-independent gastric MALT lymphoma. Genes Chromosomes Cancer 50: 908-921.
6. Eitelhuber, A.C., et al. 2011. Dephosphorylation of Carma1 by PP2A negatively regulates T-cell activation. EMBO J. 30: 594-605.
7. Kuo, S.H., et al. 2012. Expression of BCL10 in cervical cancer has a role in the regulation of cell growth through the activation of NF-κB-dependent cyclin D1 signaling. Gynecol. Oncol. 126: 245-251.