SANTA CRUZ BIOTECHNOLOGY, INC.

Bcl10 (H-197): sc-5611

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. Over-expression 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 (H-197) is a rabbit polyclonal antibody raised against amino acids 1-197 mapping at the N-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.

APPLICATIONS

Bcl10 (H-197) 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).

Bcl10 (H-197) is also recommended for detection of Bcl10 in additional species, including equine, canine, bovine and porcine.

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: CTLL-2 cell lysate: sc-2242, MM-142 cell lysate: sc-2246 or WEHI-231 whole cell lysate: sc-2213.

RESEARCH USE

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

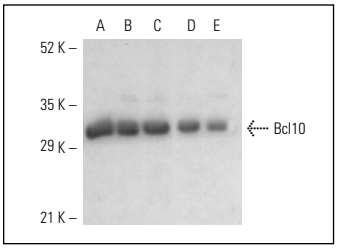
PROTOCOLS

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

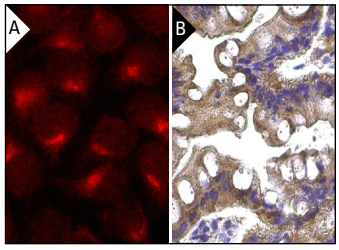
STORAGE

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

DATA



Bcl10 (H-197): sc-5611. Western blot analysis of Bcl10 expression in CTLL-2 (**A**), MM-142 (**B**), BYDP (**C**), RAW 264.7 (**D**) and WEHI-231 (**E**) whole cell lysates.



Bcl10 (H-197): sc-5611. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Wang, D., et al. 2002. A requirement for CARMA1 in TCR-induced NFκB activation. Nat. Immunol. 3: 830-835.
2. Hailfinger, S., et al. 2009. Essential role of MALT1 protease activity in activated B cell-like diffuse large B-cell lymphoma. Proc. Natl. Acad. Sci. USA 106: 19946-19951.
3. Delekta, P.C., et al. 2010. Thrombin-dependent NFκB activation and monocyte/endothelial adhesion are mediated by the CARMA3·Bcl10·MALT1 signalosome. J. Biol. Chem. 285: 41432-41442.
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 NFκB activation. J. Biol. Chem. 286: 7522-7534.
4. Hailfinger, S., et al. 2011. Malt1-dependent RelB cleavage promotes canonical NFκB activation in lymphocytes and lymphoma cell lines. Proc. Natl. Acad. Sci. USA 108: 14596-14601.
5. Oruganti, S.R., et al. 2011. CaMKII targets Bcl10 in T-cell receptor induced activation of NFκB. Mol. Immunol. 48: 1448-1460.
6. Burbach, B.J., et al. 2011. The pleckstrin homology domain in the SKAP55 adapter protein defines the ability of the adapter protein ADAP to regulate integrin function and NFκB activation. J. Immunol. 186: 6227-6237.
7. Chiarini, A., et al. 2012. Role-shifting PKCζ fosters its own proapoptotic destruction by complexing with Bcl10 at the nuclear envelope of human cervical carcinoma cells: a proteomic and biochemical study. J. Proteome Res. 11: 3996-4012.