

# Bcl10 (331.3): sc-5273

## 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 (331.3) is a mouse monoclonal antibody raised against amino acids 168-233 of Bcl10 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Bcl10 (331.3) is available conjugated to agarose (sc-5273 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-5273 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-5273 PE), fluorescein (sc-5273 FITC), Alexa Fluor® 488 (sc-5273 AF488), Alexa Fluor® 546 (sc-5273 AF546), Alexa Fluor® 594 (sc-5273 AF594) or Alexa Fluor® 647 (sc-5273 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-5273 AF680) or Alexa Fluor® 790 (sc-5273 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## APPLICATIONS

Bcl10 (331.3) 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.

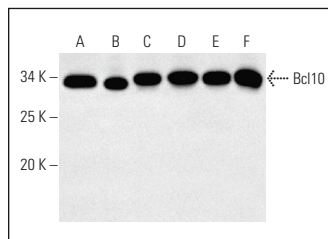
Molecular Weight of Bcl10: 33 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233, NAMALWA cell lysate: sc-2234 or U-937 cell lysate: sc-2239.

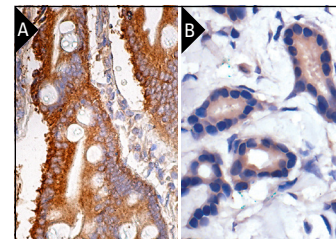
## STORAGE

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

## DATA



Bcl10 (331.3): sc-5273. Western blot analysis of Bcl10 expression in KNRK (A), WR19L (B), HuT 78 (C), MOLT-4 (D), U-937 (E) and NAMALWA (F) whole cell lysates.



Bcl10 (331.3): sc-5273. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tumor showing cytoplasmic localization (B).

## SELECT PRODUCT CITATIONS

- Gaide, O., et al. 2002. CARMA1 is a critical lipid raft-associated regulator of TCR-induced NFκB activation. *Nat. Immunol.* 3: 836-843.
- Jou, S.Y., et al. 2012. BCL10GFP fusion protein as a substrate for analysis of determinants required for mucosa-associated lymphoid tissue 1 (MALT1)-mediated cleavage. *J. Biomed. Sci.* 19: 85.
- Hosoda, W., et al. 2013. BCL10 as a useful marker for pancreatic acinar cell carcinoma, especially using endoscopic ultrasound cytology specimens. *Pathol. Int.* 63: 176-182.
- Shaiken, T.E. and Opekun, A.R. 2014. Dissecting the cell to nucleus, perinucleus and cytosol. *Sci. Rep.* 4: 4923.
- Shintaku, M., et al. 2015. Ductulo-insular pancreatic endocrine tumor with amyloid deposition: report of a case. *Pathol. Int.* 65: 197-201.
- Naik, E. and Dixit, V.M. 2016. Usp9X is required for lymphocyte activation and homeostasis through its control of ZAP70 ubiquitination and PKCβ kinase activity. *J. Immunol.* 196: 3438-3451.
- Boudesco, C., et al. 2018. HSP110 sustains chronic NF-κB signaling in activated B-cell diffuse large B-cell lymphoma through MyD88 stabilization. *Blood* 132: 510-520.
- Hiraoka, N., et al. 2019. Tissue amino acid profiles are characteristic of tumor type, malignant phenotype, and tumor progression in pancreatic tumors. *Sci. Rep.* 9: 9816.
- Wang, H., et al. 2020. Propofol induces Ros-mediated intrinsic apoptosis and migration in triple-negative breast cancer cells. *Oncol. Lett.* 20: 810-816.

## RESEARCH USE

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