

p-Bcl10 (6D3): sc-81484



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 herpesvirus-2 E10 gene and, like E10, it contains an N-terminal caspase recruitment domain (CARD). Expression of Bcl10 has been shown to induce NF κ B activation in a NIK-dependent pathway, and research indicates that the CARD domain is essential for this activation; although in a separate study, Bcl10 by itself did not induce JNK or NF κ B activation. Overexpression of Bcl10 has been shown to induce apoptosis in a manner dependent on CARD-mediated oligomerization. Bcl10 has also been 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

- Ye, H., et al. 2000. Bcl10 expression in normal and neoplastic lymphoid tissue. Nuclear localization in MALT lymphoma. *Am. J. Pathol.* 157: 1147-1154.
- Ruland, J., et al. 2001. Bcl10 is a positive regulator of antigen receptor-induced activation of NF κ B and neural tube closure. *Cell* 104: 33-42.
- Lucas, P.C., et al. 2001. Bcl10 and MALT1, independent targets of chromosomal translocation in malt lymphoma, cooperate in a novel NF κ B signaling pathway. *J. Biol. Chem.* 276: 19012-19019.
- Yui, D., et al. 2001. Interchangeable binding of Bcl10 to TRAF2 and cIAPs regulates apoptosis signaling. *Oncogene* 20: 4317-4323.
- Thome, M., et al. 2002. Bcl10. *Curr. Biol.* 12: R45.
- Zhou, H., et al. 2004. Bcl10 activates the NF κ B pathway through ubiquitination of nemo. *Nature* 427: 167-171.
- Fischer, K.D., et al. 2004. New roles for Bcl10 in B cell development and LPS response. *Trends Immunol.* 25: 113-116.
- Scharschmidt, E., et al. 2004. Degradation of Bcl10 induced by T cell activation negatively regulates NF κ B signaling. *Mol. Cell. Biol.* 24: 3860-3873.
- 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

p-Bcl10 (6D3) is a mouse monoclonal antibody raised against synthetic phosphopeptide surrounding Ser 138 of Bcl10 of human origin.

PRODUCT

Each vial contains 50 μ g IgG₁ in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, PEG and sucrose.

APPLICATIONS

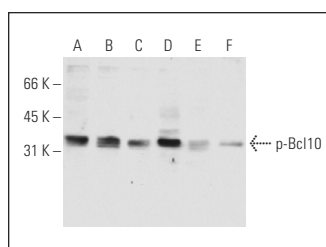
p-Bcl10 (6D3) is recommended for detection of Ser 138 phosphorylated Bcl10 of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

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.

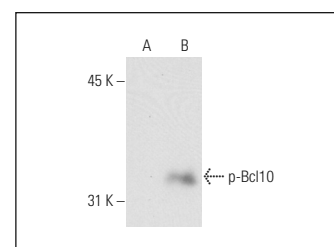
Molecular Weight of p-Bcl10: 33 kDa.

Positive Controls: Bcl10 (m): 293T Lysate: sc-118789, MCF7 whole cell lysate: sc-2206 or MDA-MB-231 cell lysate: sc-2232.

DATA



p-Bcl10 (6D3): sc-81484. Western blot analysis of Bcl10 phosphorylation in serum starved SW480 (A), SW620 (B), HT29 (C), MCF7 (D), MDA-MB-231 (E) and T-47D (F) whole cell lysates.



p-Bcl10 (6D3): sc-81484. Western blot analysis of Bcl10 phosphorylation in non-transfected: sc-117752 (A) and mouse Bcl10 transfected: sc-118789 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Bhattacharyya, S., et al. 2010. Lipopolysaccharide-induced activation of NF κ B non-canonical pathway requires Bcl10 serine 138 and NIK phosphorylations. *Exp. Cell Res.* 316: 3317-3327.
- Ismail, I.H., et al. 2016. Bcl10 is recruited to sites of DNA damage to facilitate DNA double-strand break repair. *Cell Cycle* 15: 84-94.

STORAGE

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

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.