## SANTA CRUZ BIOTECHNOLOGY, INC.

# Bcl-2 (N-19): sc-492



#### BACKGROUND

Bcl-2 is one among many key regulators of apoptosis, which are essential for proper development, tissue homeostasis, and protection against foreign pathogens. Human Bcl-2 is an anti-apoptotic, membrane-associated oncoprotein that can promote cell survival through protein-protein interactions with other Bcl-2 related family members, such as the death suppressors Bcl-x<sub>L</sub>, Mcl-1, Bcl-w, and A1 or the death agonists Bax, Bak, Bik, Bad, and Bid. The anti-apoptotic function of Bcl-2 can also be regulated through proteolytic processing and phosphorylation. Bcl-2 may promote cell survival by interfering with the activation of the cytochrome c/Apaf-1 pathway through stabilization of the mitochondrial membrane. Mutations in the Bcl-2 gene can contribute to cancers where normal physiological cell death mechanisms are compromised by deregulation of the anti-apoptotic influence of Bcl-2.

#### CHROMOSOMAL LOCATION

Genetic locus: BCL2 (human) mapping to 18q21.33; Bcl2 (mouse) mapping to 1 E2.1.

#### SOURCE

Bcl-2 (N-19) is available as either rabbit (sc-492) or goat (sc-492-G) polyclonal affinity purified antibody raised against a peptide mapping at the N-terminus of Bcl-2 of human origin.

## PRODUCT

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Bcl-2 (N-19) is available conjugated to agarose (sc-492 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; and to HRP (sc-492 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA.

Blocking peptide available for competition studies, sc-492 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Bcl-2 (N-19) is recommended for detection of Bcl-2 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).

Bcl-2 (N-19) is also recommended for detection of Bcl-2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for BcI-2 siRNA (h): sc-29214, BcI-2 siRNA (m): sc-29215, BcI-2 shRNA Plasmid (h): sc-29214-SH, BcI-2 shRNA Plasmid (m): sc-29215-SH, BcI-2 shRNA (h) Lentiviral Particles: sc-29214-V and BcI-2 shRNA (m) Lentiviral Particles: sc-29215-V.

Molecular Weight of Bcl-2: 26 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, U-937 cell lysate: sc-2239 or HL-60 whole cell lysate: sc-2209.

#### STORAGE

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

## DATA





Bcl-2 (N-19): sc-492 HRP. Direct western blot analysis of Bcl-2 expression in U-937 (A), HL-60  $({\rm B})$  and Jurkat (C) whole cell lysates.

Bcl-2 (N-19): sc-492. Immunofluorescence staining of methanol-fixed HL-60 cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalinfixed, parafin-embedded human tonsil tissue showing cytoplasmic staining (**B**).

#### SELECT PRODUCT CITATIONS

- Hagimoto, N., et al. 2002. TGFβ1 as an enhancer of FAS-mediated apoptosis of lung epithelial cells. J. Immunol. 168: 6470-6478.
- 2. Kim, B.C., et al. 2002. Transforming growth factor  $\beta$  1 induces apoptosis through cleavage of BAD in a Smad3-dependent mechanism in FaO hepatoma cells. Mol. Cell. Biol. 22: 1369-1378.
- 3. Zhao, W., et al. 2015. The role and mechanism of WEE1 on the cisplatin resistance reversal of the Hep G2/DDP human hepatic cancer cell line. Oncol. Lett. 10: 3081-3086.
- Lv, L., et al. 2016. Effect of miR-155 knockdown on the reversal of doxorubicin resistance in human lung cancer A549/dox cells. Oncol. Lett. 11: 1161-1166.
- 5. Duan, X., et al. 2016. Antioxidant tert-butylhydroquinone ameliorates arsenic-induced intracellular damages and apoptosis through induction of Nrf2-dependent antioxidant responses as well as stabilization of anti-apoptotic factor Bcl-2 in human keratinocytes. Free Radic. Biol. Med. 94: 74-87.
- Di Paola, R., et al. 2016. Protective effects of ultramicronized palmitoylethanolamide (PEA-UM<sup>®</sup>) in myocardial ischaemia and reperfusion injury *in vivo*. Shock. E-published.

#### **RESEARCH USE**

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



Try BcI-2 (C-2): sc-7382 or BcI-2 (100): sc-509, our highly recommended monoclonal alternatives to BcI-2 (N-19). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see BcI-2 (C-2): sc-7382.