## SANTA CRUZ BIOTECHNOLOGY, INC.

# Bcl-2 (12): sc-130307



#### 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.

#### SOURCE

Bcl-2 (12) is a mouse monoclonal antibody raised against recombinant Bcl-2 of human origin.

#### PRODUCT

Each vial contains 200  $\mu g$  IgG\_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

#### **APPLICATIONS**

Bcl-2 (12) is recommended for detection of Bcl-2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

Molecular Weight of Bcl-2: 26 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HL-60 whole cell lysate: sc-2209 or THP-1 cell lysate: sc-2238.

#### **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## **STORAGE**

Store at 4° C, \*\*D0 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.

#### DATA



Bcl-2 (12): sc-130307. Western blot analysis of Bcl-2 expression in HL-60 (**A**), K-562 (**B**) and THP-1 (**C**) whole cell lysates.

## SELECT PRODUCT CITATIONS

- 1. Lin, C., et al. 2012. NOXA-induced alterations in the Bax/Smac axis enhance sensitivity of ovarian cancer cells to cisplatin. PLoS ONE 7: e36722.
- Zhang, Z., et al. 2013. An antiapoptotic Bcl-2 family protein index predicts the response of leukaemic cells to the pan-Bcl-2 inhibitor S1. Br. J. Cancer 108: 1870-1878.
- Hou, J., et al. 2014. PTPRO plays a dual role in hepatic ischemia reperfusion injury through feedback activation of NFκB. J. Hepatol. 60: 306-312.
- Zhang, W., et al. 2015. PTPRO-mediated autophagy prevents hepatosteatosis and tumorigenesis. Oncotarget 6: 9420-9433.
- Zhang, D., et al. 2018. Inhibition of cyclin D1 expression in human glioblastoma cells is associated with increased Temozolomide chemosensitivity. Cell. Physiol. Biochem. 51: 2496-2508.
- Cao, B., et al. 2019. miR-512-5p suppresses proliferation, migration and invasion, and induces apoptosis in non-small cell lung cancer cells by targeting ETS1. Mol. Med. Rep. 19: 3604-3614.
- 7. Shen, W., et al. 2019. TRIM14 promotes cell proliferation and inhibits apoptosis by suppressing PTEN in colorectal cancer. Cancer Manag. Res. 11: 5725-5735.
- Hou, L., et al. 2019. ABT737 enhances ovarian cancer cells sensitivity to cisplatin through regulation of mitochondrial fission via Sirt3 activation. Life Sci. 232: 116561.
- Li, C., et al. 2020. MicroRNA-3651 promotes colorectal cancer cell proliferation through directly repressing T-box transcription factor 1. Int. J. Mol. Med. 45: 956-966.



See **BcI-2 (C-2): sc-7382** for BcI-2 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor<sup>®</sup> 488, 546, 594, 647, 680 and 790.