

# 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 µg IgG<sub>2a</sub> 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 µg per 100-500 µg 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 Bcl-2 siRNA (h): sc-29214, Bcl-2 shRNA Plasmid (h): sc-29214-SH and Bcl-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™ Molecular Weight Standards: sc-2035, UltraCruz® 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).

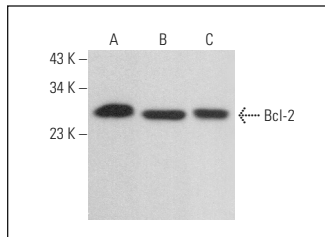
## STORAGE

Store at 4° C, **\*\*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.

## 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

- Chien, M.H., et al. 2012. Lipocalin-2 induces apoptosis in human hepatocellular carcinoma cells through activation of mitochondria pathways. *Cell Biochem. Biophys.* 64: 177-186.
- 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.
- Wang, J., et al. 2012. Knockdown of cyclin D1 inhibits proliferation, induces apoptosis, and attenuates the invasive capacity of human glioblastoma cells. *J. Neurooncol.* 106: 473-484.
- Hu, W., et al. 2012. Proapoptotic protein Smac mediates apoptosis in cisplatin-resistant ovarian cancer cells when treated with the anti-tumor agent AT101. *J. Biol. Chem.* 287: 68-80.
- Cui, Y., et al. 2012. Knockdown of AKT2 expression by RNA interference inhibits proliferation, enhances apoptosis, and increases chemosensitivity to the anticancer drug VM-26 in U87 glioma cells. *Brain Res.* 1469: 1-9.
- Bai, X., et al. 2015. Inhibitory effects of evodiamine on human osteosarcoma cell proliferation and apoptosis. *Oncol. Lett.* 9: 801-805.
- Zhang, W., et al. 2015. PTPRO-mediated autophagy prevents hepatosteatosis and tumorigenesis. *Oncotarget* 6: 9420-9433.
- Du, C., et al. 2018. Bcl-2 promotes metastasis through the epithelial-to-mesenchymal transition in the BCap37 medullary breast cancer cell line. *Oncol. Lett.* 15: 8991-8898.
- 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.

## CONJUGATES

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