

# Bcl-2 (4C11): sc-578

## BACKGROUND

Apoptosis defines a set of cascades which, when initiated, programs the cell to undergo lethal changes, such as membrane blebbing, mitochondrial break down, and DNA fragmentation. 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 a membrane associated, anti-apoptotic 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 (mouse) mapping to 1 E2.1.

## SOURCE

Bcl-2 (4C11) is a rat monoclonal antibody raised against full length recombinant Bcl-2 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2c</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Bcl-2 (4C11) is available conjugated to agarose (sc-578 AC), 500 µg/0.25 ml agarose in 1 ml, for IP.

## APPLICATIONS

Bcl-2 (4C11) is recommended for detection of Bcl-2 of mouse and rat origin by 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

Molecular Weight of Bcl-2: 26 kDa.

Positive Controls: WEHI-231 whole cell lysate: sc-2213 or mouse spleen extract: sc-2391.

## RESEARCH USE

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

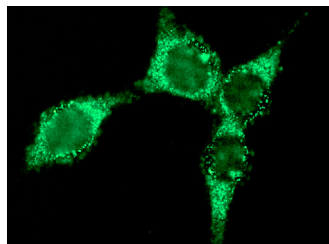
## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## 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 (4C11): sc-578. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

- Cleveland, J.L., et al. 1994. v-Raf suppresses apoptosis and promotes growth of interleukin-3-dependent myeloid cells. *Oncogene* 9: 2217-2226.
- Yan, B., et al. 2003. The PIM-2 kinase phosphorylates BAD on Serine 112 and reverses BAD-induced cell death. *J. Biol. Chem.* 278: 45358-45367.
- Rodriguez-Pallares, J., et al. 2008. Brain angiotensin enhances dopaminergic cell death via microglial activation and NADPH-derived ROS. *Neurobiol. Dis.* 31: 58-73.
- Gillespie, M.A., et al. 2009. p38-γ-dependent gene silencing restricts entry into the myogenic differentiation program. *J. Cell Biol.* 187: 991-1005.
- Marchong, M.N., et al. 2010. Cdh11 acts as a tumor suppressor in a murine retinoblastoma model by facilitating tumor cell death. *PLoS Genet.* 6: e1000923.
- Contreras, A.U., et al. 2013. Deacetylation of p53 induces autophagy by suppressing Bmf expression. *J. Cell Biol.* 201: 427-437.
- Gu, X., et al. 2016. Protective effect of paeoniflorin on inflammation and apoptosis in the cerebral cortex of a transgenic mouse model of Alzheimer's disease. *Mol. Med. Rep.* 13: 2247-2252.
- Zou, Z.K., et al. 2017. Silencing of LSD1 gene modulates histone methylation and acetylation and induces the apoptosis of JeKo-1 and MOLT-4 cells. *Int. J. Mol. Med.* 40: 319-328.
- Guo, Y., et al. 2018. Long non-coding RNA ZEB2-AS1 promotes proliferation and inhibits apoptosis in human lung cancer cells. *Oncol. Lett.* 15: 5220-5226.



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.