SANTA CRUZ BIOTECHNOLOGY, INC.

Bcl-2 (100/D5): sc-56015

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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_L, 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.

REFERENCES

1. Kerr, J.F., et al. 1972. Apoptosis: a basic biological phenomenon with wide-ranging implications in tissue kinetics. Br. J. Cancer 26: 239-257.
2. Hockenbery, D., et al. 1990. Bcl-2 is an inner mitochondrial membrane protein that blocks programmed cell death. Nature 348: 334-336.

CHROMOSOMAL LOCATION

Genetic locus: Bcl-2 (human) mapping to 18q21.33; Bcl-2 (mouse) mapping to 1 E2.1.

SOURCE

Bcl-2 (100/D5) is a mouse monoclonal antibody raised against amino acids 41-54 of Bcl-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Bcl-2 (100/D5) 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) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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

Molecular Weight of Bcl-2: 26 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, Jurkat whole cell lysate: sc-2204 or Bcl-2 (h): 293T Lysate: sc-176463.

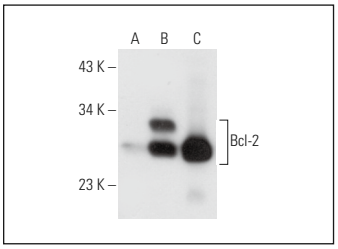
RESEARCH USE

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

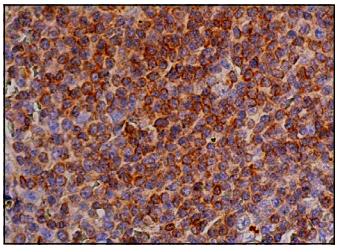
STORAGE

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

DATA



Bcl-2 (100/D5): sc-56015. Western blot analysis of Bcl-2 expression in non-transfected 293T: sc-117752 (**A**), human Bcl-2 transfected 293T: sc-176463 (**B**) and HL-60 (**C**) whole cell lysates.



Bcl-2 (100/D5): sc-56015. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing cytoplasmic staining of cells in white pulp and cells in red pulp.

SELECT PRODUCT CITATIONS

1. Zhou, Z.Y., et al. 2011. Interdigitating dendritic cell tumor of the lymph node in the right submaxillary region: a case report and review of the literature. Int. J. Surg. Pathol. 19: 88-92.
2. Chen, Y.J., et al. 2013. The synthetic flavonoid WYC02-9 inhibits colorectal cancer cell growth through Ros-mediated activation of MAPK14 pathway. Life Sci. 92: 1081-1092.
3. Li, X.D., et al. 2013. Protein kinase A-mediated cardioprotection of Tongxinluo relates to the inhibition of myocardial inflammation, apoptosis, and edema in reperfused swine hearts. Chin. Med. J. 126: 1469-1479.
4. Peng, Y.T., et al. 2016. Particularly interesting Cys-His-rich protein is highly expressed in human intracranial aneurysms and resists aneurysmal rupture. Exp. Ther. Med. 12: 3905-3912.
5. Ma, K., et al. 2016. Matrine-induced autophagy counteracts cell apoptosis via the ERK signaling pathway in osteosarcoma cells. Oncol. Lett. 12: 1854-1860.
6. Li, S., et al. 2017. HDAC2 regulates cell proliferation, cell cycle progression and cell apoptosis in esophageal squamous cell carcinoma EC9706 cells. Oncol. Lett. 13: 403-409.
7. He, M., et al. 2017. miR-486 suppresses the development of osteosarcoma by regulating PKC-δ pathway. Int. J. Oncol. 50: 1590-1600.
8. Hou, R., et al. 2017. miR-762 can negatively regulate menin in ovarian cancer. Onco Targets Ther. 10: 2127-2137.
9. Gong, J., et al. 2017. miRNA-1271 inhibits cell proliferation in neuroglioma by targeting fibronectin 1. Mol. Med. Rep. 16: 143-150.

CONJUGATES

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