SANTA CRUZ BIOTECHNOLOGY, INC.

Bcl-2 (C 21): sc-783

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-ω, 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 (C 21) is a rabbit polyclonal antibody raised against amino acids 1-205 of Bcl-2 of human origin.

PRODUCT

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

APPLICATIONS

Bcl-2 (C 21) 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 (C 21) is also recommended for detection of Bcl-2 in additional species, including equine, canine, bovine and porcine.

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

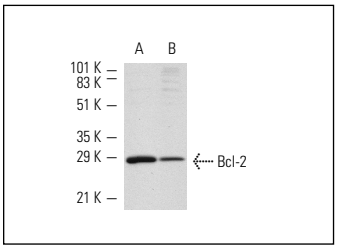
STORAGE

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

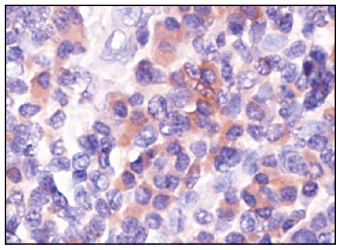
RESEARCH USE

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

DATA



Bcl-2 (C 21): sc-783. Western blot analysis of Bcl-2 expression in HL-60 (**A**) and Jurkat (**B**) whole cell lysates.



Bcl-2 (C 21): sc-783. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human tonsil tissue showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

1. Fussenegger, M., et al. 1998. Controlled proliferation by multigene metabolic engineering enhances the productivity of Chinese hamster ovary cells. Nat. Biotechnol. 16: 468-472.
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3. Tikoo, K., et al. 2011. Tannic acid ameliorates doxorubicin-induced cardiotoxicity and potentiates its anti-cancer activity: potential role of tannins in cancer chemotherapy. Toxicol. Appl. Pharmacol. 251: 191-200.
4. Lin, X., et al. 2011. An autoimmunized mouse model recapitulates key features in the pathogenesis of Sjögren's syndrome. Int. Immunol. 23: 613-624.
5. Cogno, I.S., et al. 2011. Optimization of photodynamic therapy response by survivin gene knockdown in human metastatic breast cancer T47D cells. J. Photochem. Photobiol. B, Biol. 104: 434-443.
6. Albajar, M., et al. 2011. MYC in chronic myeloid leukemia: induction of aberrant DNA synthesis and association with poor response to imatinib. Mol. Cancer Res. 9: 564-576.
7. Yu, X., et al. 2012. Induction of cell proliferation and survival genes by estradiol-repressed microRNAs in breast cancer cells. BMC Cancer 12: 29.
8. Sánchez-Hidalgo, M., et al. 2012. Melatonin inhibits cell proliferation and induces caspase activation and apoptosis in human malignant lymphoid cell lines. J. Pineal Res. 53: 366-373.
9. Xu, H., et al. 2012. Oestrogen attenuates tumour progression in hepatocellular carcinoma. J. Pathol. 228: 216-229.