

Bcl-2 (100): sc-509



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 antiapoptotic 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 (100) is a mouse monoclonal antibody raised against a synthetic peptide corresponding to amino acids 41-54 of human Bcl-2.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Bcl-2 (100) is available conjugated to agarose (sc-509 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-509 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-509 PE), fluorescein (sc-509 FITC), Alexa Fluor® 488 (sc-509 AF488), Alexa Fluor® 546 (sc-509 AF546), Alexa Fluor® 594 (sc-509 AF594) or Alexa Fluor® 647 (sc-509 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-509 AF680) or Alexa Fluor® 790 (sc-509 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, Bcl-2 (100) is available conjugated to TRITC (sc-509 TRITC, 200 µg/ml), 100 tests in 2 ml, for IF, IHC(P) and FCM.

APPLICATIONS

Bcl-2 (100) 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)], 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 flow cytometry (1 µg per 1 x 10⁶ cells); non cross-reactive with Bcl-2 of mouse or rat origin.

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.

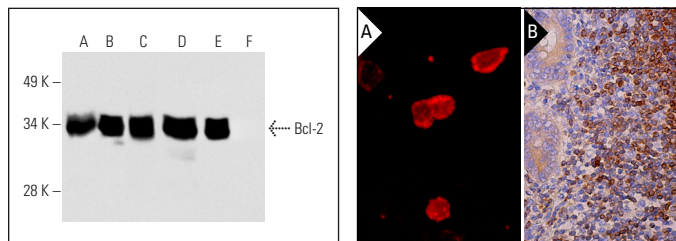
Molecular Weight of Bcl-2: 26 kDa.

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

STORAGE

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

DATA



Western blot analysis of Bcl-2 expression in HL-60 (A,D), Jurkat (B,E) and WEHI-231 (C,F) whole cell lysates. Antibodies tested include Bcl-2 (C-2): sc-7382 (A-C) and Bcl-2 (100): sc-509 (D-F).

Bcl-2 (100): sc-509. Immunofluorescence staining of methanol-fixed HL-60 cells showing cytoplasmic staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing cytoplasmic staining of glandular cells and lymphoid cells (B).

SELECT PRODUCT CITATIONS

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- Gomes, A.R., et al. 2021. Design, synthesis, and antitumor activity evaluation of steroidal oximes. *Bioorg. Med. Chem.* 46: 116360.
- Kim, J.L., et al. 2022. Role of phloretin as a sensitizer to TRAIL-induced apoptosis in colon cancer. *Oncol. Lett.* 24: 321.
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RESEARCH USE

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

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