

Bcl-2 (10C4): sc-23960



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.

CHROMOSOMAL LOCATION

Genetic locus: BCL2 (human) mapping to 18q21.33; Bcl2 (mouse) mapping to 1 E2.1.

SOURCE

Bcl-2 (10C4) is a mouse monoclonal antibody raised against a synthetic peptide corresponding to aa 61-76 of mouse 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 (10C4) is available conjugated to agarose (sc-23960 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-23960 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-23960 PE), fluorescein (sc-23960 FITC), Alexa Fluor® 488 (sc-23960 AF488), Alexa Fluor® 546 (sc-23960 AF546), Alexa Fluor® 594 (sc-23960 AF594) or Alexa Fluor® 647 (sc-23960 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-23960 AF680) or Alexa Fluor® 790 (sc-23960 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Bcl-2 (10C4) 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)] and immunofluorescence (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.

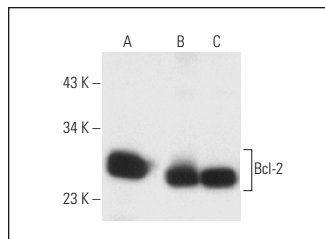
Molecular Weight of Bcl-2: 26 kDa.

Positive Controls: Bcl-2 (m): 293T Lysate: sc-118779, WEHI-231 whole cell lysate: sc-2213 or rat spleen extract: sc-2397.

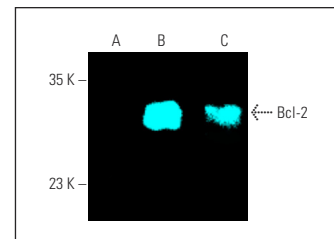
STORAGE

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

DATA



Bcl-2 (10C4): sc-23960. Western blot analysis of Bcl-2 expression in WEHI-231 whole cell lysate (A) and mouse spleen (B) and rat spleen (C) tissue extracts.



Bcl-2 (10C4): sc-23960. Fluorescent western blot analysis of Bcl-2 expression in non-transfected 293T: sc-117752 (A) and mouse Bcl-2 transfected 293T: sc-118779 (B) whole cell lysates and rat spleen tissue extract (C). Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG₁ BP-CFL 647: sc-533664.

SELECT PRODUCT CITATIONS

- Portier, B.P., et al. 2006. Bcl-2 Localized at the nuclear compartment induces apoptosis after transient overexpression. *J. Biol. Chem.* 281: 40493-40502.
- Lee, S.A., et al. 2013. Brefeldin a induces apoptosis by activating the mitochondrial and death receptor pathways and inhibits focal adhesion kinase-mediated cell invasion. *Basic Clin. Pharmacol. Toxicol.* 113: 329-338.
- Shen, X., et al. 2014. The effect of FFAR1 on pioglitazone-mediated attenuation of palmitic acid-induced oxidative stress and apoptosis in βTC6 cells. *Metab. Clin. Exp.* 63: 335-351.
- Zhuang, Z., et al. 2017. Notch 1 is a valuable therapeutic target against cell survival and proliferation in clear cell renal cell carcinoma. *Oncol. Lett.* 14: 3437-3444.
- Wang, X., et al. 2018. REV-ERBα reduction is associated with clinicopathological features and prognosis in human gastric cancer. *Oncol. Lett.* 16: 1499-1506.
- Guo, G., et al. 2019. MicroRNA-153 affects nasopharyngeal cancer cell viability by targeting TGF-β2. *Oncol. Lett.* 17: 646-651.
- Roca-Portoles, A., et al. 2020. Venetoclax causes metabolic reprogramming independent of Bcl-2 inhibition. *Cell Death Dis.* 11: 616.
- Lin, J., et al. 2021. G₂/M cell cycle arrest and apoptosis induced by COH-203 in human promyelocytic leukemia HL-60 cells. *Oncol. Lett.* 22: 815.
- Ma, T., et al. 2022. Long noncoding XLOC_006390 regulates the proliferation and metastasis of human colorectal cancer via miR-296/ONECUT2 axis. *J. Oncol.* 2022: 4897201.

RESEARCH USE

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