

Bcl-x_{S/L} (D-3): sc-271121

BACKGROUND

The Bcl-2 gene was isolated at the chromosomal breakpoint of t(14;18) bearing follicular B cell lymphomas. Bcl-2 blocks cell death following a variety of stimuli and confers a death-sparing effect to certain hematopoietic cell lines following growth factor withdrawal. A second protein, designated Bcl-associated X protein (Bax) p21, has extensive amino acid homology with Bcl-2 and both homodimerizes and heterodimerizes with Bcl-2. Overexpression of Bax accelerates apoptotic death induced by cytokine deprivation in an IL-3-dependent cell line, and Bax also counters the death repressor activity of Bcl-2. Bcl-x, one of several additional proteins with sequence homology to Bcl-2, is expressed as Bcl-x_L, a 233 amino acid protein with 43% sequence identity with Bcl-2 that suppresses cell death, and Bcl-x_S, a shorter variant that is 178 amino acids in length and lacks a 63 amino acid region (amino acids 126-188) found in Bcl-x_L and which functions as a dominant inhibitor of Bcl-2. A further apoptosis-inducing protein, Bad, dimerizes both with Bcl-x_L and to a lesser extent with Bcl-2, thus displacing Bax and inducing apoptosis.

CHROMOSOMAL LOCATION

Genetic locus: BCL2L1 (human) mapping to 20q11.21; Bcl2l1 (mouse) mapping to 2 H1.

SOURCE

Bcl-x_{S/L} (D-3) is a mouse monoclonal antibody raised against amino acids 1-125 mapping at the N-terminus of Bcl-x_{S/L} of mouse origin.

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-x_{S/L} (D-3) is available conjugated to agarose (sc-271121 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271121 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271121 PE), fluorescein (sc-271121 FITC), Alexa Fluor[®] 488 (sc-271121 AF488), Alexa Fluor[®] 546 (sc-271121 AF546), Alexa Fluor[®] 594 (sc-271121 AF594) or Alexa Fluor[®] 647 (sc-271121 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-271121 AF680) or Alexa Fluor[®] 790 (sc-271121 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Bcl-x_{S/L} (D-3) is recommended for detection of Bcl-x_S and Bcl-x_L of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

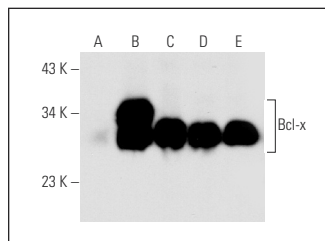
Suitable for use as control antibody for Bcl-x_{S/L} siRNA (h): sc-29216, Bcl-x_{S/L} siRNA (m): sc-29217, Bcl-x_{S/L} shRNA Plasmid (h): sc-29216-SH, Bcl-x_{S/L} shRNA Plasmid (m): sc-29217-SH, Bcl-x_{S/L} shRNA (h) Lentiviral Particles: sc-29216-V and Bcl-x_{S/L} shRNA (m) Lentiviral Particles: sc-29217-V.

Molecular Weight of Bcl-x_{S/L}: 30/18 kDa.

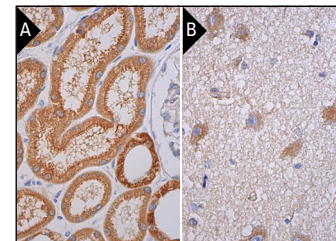
STORAGE

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

DATA



Bcl-x_{S/L} (D-3): sc-271121. Western blot analysis of Bcl-x expression in non-transfected 293T: sc-117752 (A), human Bcl-x transfected 293T: sc-159338 (B), BJAB (C), SW480 (D) and Ramos (E) whole cell lysates.



Bcl-x_{S/L} (D-3): sc-271121. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing cytoplasmic staining of neuronal cells (B).

SELECT PRODUCT CITATIONS

- Yang, C., et al. 2015. Downregulation of the expression of B-cell lymphoma-extra large by RNA interference induces apoptosis and enhances the radiosensitivity of non-small cell lung cancer cells. *Mol. Med. Rep.* 12: 449-455.
- Chou, H.C., et al. 2017. From the cover: l-carnitine via PPAR γ - and Sirt1-dependent mechanisms attenuates epithelial-mesenchymal transition and renal fibrosis caused by perfluorooctanesulfonate. *Toxicol. Sci.* 160: 217-229.
- Baran, K., et al. 2017. The proline rich domain of p53 is dispensable for MGMT-dependent DNA repair and cell survival following alkylation damage. *Cell Death Differ.* 24: 1925-1936.
- Lee, S.R., et al. 2019. Accelerated degradation of cFLIPL and sensitization of the TRAIL DISC-mediated apoptotic cascade by pinorelinol, a lignan isolated from *Rubia philippinensis*. *Sci. Rep.* 9: 13505.
- Kim, S.J., et al. 2022. Impact of imatinib administration on the mouse ovarian follicle count and levels of intra-ovarian proteins related to follicular quality. *Clin. Exp. Reprod. Med.* 49: 93-100.
- Valentini, E., et al. 2022. Targeting the anti-apoptotic Bcl-2 family proteins: machine learning virtual screening and biological evaluation of new small molecules. *Theranostics* 12: 2427-2444.
- Karra, A.G., et al. 2023. Increased expression of the mitochondrial glucocorticoid receptor enhances tumor aggressiveness in a mouse xenograft model. *Int. J. Mol. Sci.* 24: 3740.

RESEARCH USE

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

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