# SANTA CRUZ BIOTECHNOLOGY, INC.

# Bcl-x<sub>S/L</sub> (4H33): sc-70418



## 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<sub>L</sub>, a 233 amino acid protein with 43% sequence identity with Bcl-2 that suppresses cell death, and Bcl-x<sub>S</sub>, 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<sub>L</sub> and which functions as a dominant inhibitor of Bcl-2. A further apoptosis-inducing protein, Bad, dimerizes both with Bcl-x<sub>L</sub> 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

 $Bcl-x_{S/L}$  (4H33) is a mouse monoclonal antibody raised against an N-terminal peptide (amino acids 3-14) common to human and mouse  $Bcl-x_1$  and  $Bcl-x_S$ .

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

#### **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.

#### **APPLICATIONS**

Bcl-x<sub>S/L</sub> (4H33) is recommended for detection of Bcl-x<sub>L</sub> and Bcl-x<sub>S</sub> of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraf-fin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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

Molecular Weight of Bcl-x<sub>S/L</sub>: 30 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, C6 whole cell lysate: sc-364373 or SW480 cell lysate: sc-2219.

#### **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

#### DATA





Bcl-x<sub>S/L</sub> (4H33): sc-70418. Western blot analysis of Bcl-x<sub>S/L</sub> expression in BJAB (**A**), NIH/313 (**B**) and LADMAC (**C**) whole cell lysates and mouse brain tissue extract (**D**).

Bcl-x\_{S/L} (4H33): sc-70418. Western blot analysis of Bcl-x\_{S/L} expression in BJAB (A), SW480 (B) and C6 (C) whole cell lysates.

### **SELECT PRODUCT CITATIONS**

- Guo, F., et al. 2015. Downregulation of matrix metalloproteinase 9 by small interfering RNA inhibits the tumor growth of ovarian epithelial carcinoma *in vitro* and *in vivo*. Mol. Med. Rep. 12: 753-759.
- Venkatesan, N., et al. 2016. Targeting HSP90/survivin using a cell permeable structure based peptido-mimetic shepherdin in retinoblastoma. Chem. Biol. Interact. 252: 141-149.
- Yu, F., et al. 2020. Downregulation of miRNA-663b protects against hypoxia-induced injury in cardiomyocytes by targeting BCL2L1. Exp. Ther. Med. 19: 3581-3588.
- Yoshida, T., et al. 2020. Minocycline reverses IL-17A/TRAF3IP2-mediated p38 MAPK/NFκB/iNOS/NO-dependent cardiomyocyte contractile depression and death. Cell. Signal. 73: 109690.

### PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.



See **BcI-x<sub>L</sub> (H-5): sc-8392** for BcI-x<sub>L</sub> antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor<sup>®</sup> 488, 546, 594, 647, 680 and 790.