

# Bcl-x<sub>S/L</sub> (2H12): sc-23958

## 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. Over-expression 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<sub>S/L</sub> (2H12) is a mouse monoclonal antibody raised against an N-terminal peptide (amino acids 3-14) common to human and mouse Bcl-x<sub>L</sub> and Bcl-x<sub>S</sub>.

## PRODUCT

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

## APPLICATIONS

Bcl-x<sub>S/L</sub> (2H12) 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 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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

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

Positive Controls: Ramos cell lysate: sc-2216, NAMALWA cell lysate: sc-2234 or C6 whole cell lysate: sc-364373.

## RESEARCH USE

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

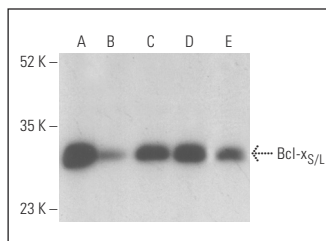
## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

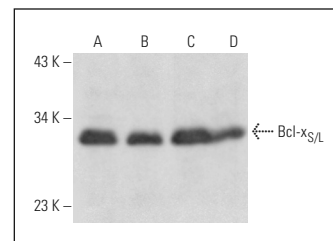
## STORAGE

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

## DATA



Bcl-x<sub>S/L</sub> (2H12): sc-23958. Western blot analysis of Bcl-x<sub>S/L</sub> expression in BJAB (A), NAMALWA (B), Ramos (C), HCT-116 (D) and NIH/3T3 (E) whole cell lysates. Detection reagent used: m-IgG<sub>2a</sub> BP-HRP: sc-542731.



Bcl-x<sub>S/L</sub> (2H12): sc-23958. Western blot analysis of Bcl-x<sub>S/L</sub> expression in Ramos (A), HCT-116 (B), C6 (C) and NAMALWA (D) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Kumaraguruparan, R., et al. 2006. Of humans and canines: a comparative evaluation of heat shock and apoptosis-associated proteins in mammary tumors. *Clin. Chim. Acta* 365: 168-176.
- Datta, S., et al. 2007. Bmi-1 cooperates with H-Ras to transform human mammary epithelial cells via dysregulation of multiple growth-regulatory pathways. *Cancer Res.* 67: 10286-10295.
- Pérez-Galán, P., et al. 2008. Bcl-2 phosphorylation modulates sensitivity to the BH3 mimetic GX15-070 (Obatoclax) and reduces its synergistic interaction with bortezomib in chronic lymphocytic leukemia cells. *Leukemia* 22: 1712-1720.
- Sharma, R., et al. 2010. Role of lipid peroxidation in cellular responses to D,L-sulforaphane, a promising cancer chemopreventive agent. *Biochemistry* 49: 3191-3202.
- Montes, M., et al. 2015. Functional consequences for apoptosis by transcription elongation regulator 1 (TCERG1)-mediated Bcl-x and Fas/CD95 alternative splicing. *PLoS ONE* 10: e0139812.
- Wu, J.L., et al. 2016. Temporal regulation of Lsp1 O-GlcNAcylation and phosphorylation during apoptosis of activated B cells. *Nat. Commun.* 7: 12526.
- Kroon, J., et al. 2016. Glucocorticoid receptor antagonism reverts docetaxel resistance in human prostate cancer. *Endocr. Relat. Cancer* 23: 35-45.
- Pham, C.H., et al. 2021. Anticancer effects of propionic acid inducing cell death in cervical cancer cells. *Molecules* 26: 4951.

## CONJUGATES

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