

## Bcl-x<sub>L</sub> (A-20): sc-7122

### 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<sub>L</sub> (A-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Bcl-x<sub>L</sub> of human origin.

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-7122 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

Bcl-x<sub>L</sub> (A-20) is recommended for detection of Bcl-x<sub>L</sub> of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Bcl-x<sub>L</sub> (A-20) is also recommended for detection of Bcl-x<sub>L</sub> in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Bcl-x<sub>L</sub> siRNA (h): sc-43630, Bcl-x<sub>L</sub> siRNA (m): sc-44802, Bcl-x<sub>L</sub> shRNA Plasmid (h): sc-43630-SH, Bcl-x<sub>L</sub> shRNA Plasmid (m): sc-44802-SH, Bcl-x<sub>L</sub> shRNA (h) Lentiviral Particles: sc-43630-V and Bcl-x<sub>L</sub> shRNA (m) Lentiviral Particles: sc-44802-V.

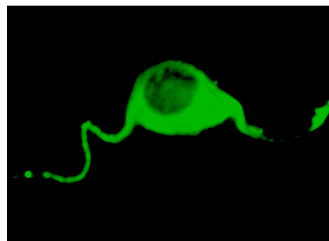
Molecular Weight of Bcl-x<sub>L</sub>: 30 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, K-562 whole cell lysate: sc-2203 or SW480 cell lysate: sc-2219.

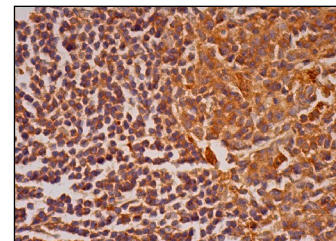
### STORAGE

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>L</sub> (A-20): sc-7122. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.



Bcl-x<sub>L</sub> (A-20): sc-7122. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic staining of cells in germinal centers and cells in non-germinal centers.

### SELECT PRODUCT CITATIONS

- Shi, Z., et al. 2001. S-Phase arrest by nucleoside analogues and abrogation of survival without cell cycle progression by 7-hydroxystaurosporine. *Cancer Res.* 61: 1065-1072.
- Gravina, G.L., et al. 2010. 5-Azacytidine restores and amplifies the bicalutamide response on preclinical models of androgen receptor expressing or deficient prostate tumors. *Prostate* 70: 1166-1178.
- Tsuruyama, T., et al. 2011. Murine leukemia retrovirus integration induces the formation of transcription factor complexes on palindromic sequences in the signal transducer and activator of transcription factor 5α gene during the development of pre-B lymphomagenesis. *Am. J. Pathol.* 178: 1374-1386.
- Wincewicz, A., et al. 2011. STAT3 and apoptosis regulators: Bak and Bcl-x<sub>L</sub> in endometrioid adenocarcinomas of different estrogen receptor-α immunoprofile. *Gynecol. Endocrinol.* 27: 536-540.
- Edison, N., et al. 2012. The IAP-antagonist ARTS initiates caspase activation upstream of cytochrome C and SMAC/Diablo. *Cell Death Differ.* 19: 356-368.
- Triscuoglio, D., et al. 2012. CPTH6, a thiazole derivative, induces histone hypoacetylation and apoptosis in human leukemia cells. *Clin. Cancer Res.* 18: 475-486.

### RESEARCH USE

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



Try **Bcl-x<sub>L</sub> (H-5): sc-8392** or **Bcl-x<sub>L</sub> (4): sc-136132**, our highly recommended monoclonal alternatives to Bcl-x<sub>L</sub> (A-20). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **Bcl-x<sub>L</sub> (H-5): sc-8392**.