

## Bcl-x<sub>S/L</sub> (L-19): sc-1041

### 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> (L-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of Bcl-x<sub>S/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-1041 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as HRP conjugate for Western blotting, sc-1041 HRP, 200 µg/ml.

### APPLICATIONS

Bcl-x<sub>S/L</sub> (L-19) is recommended for detection of Bcl-x<sub>S</sub> and Bcl-x<sub>L</sub> of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); recommended reagent for detection of Bcl-x<sub>S/L</sub>.

Bcl-x<sub>S/L</sub> (L-19) is also recommended for detection of Bcl-x<sub>S</sub> and Bcl-x<sub>L</sub> in additional species, including equine, canine, bovine and porcine.

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.

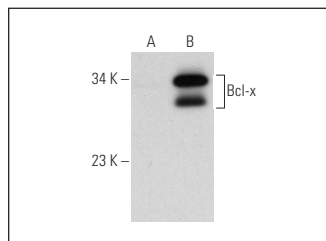
Molecular Weight of Bcl-x<sub>S/L</sub>: 30/18 kDa.

Positive Controls: Ramos cell lysate: sc-2216, K-562 whole cell lysate: sc-2203 or BJAB whole cell lysate: sc-2207.

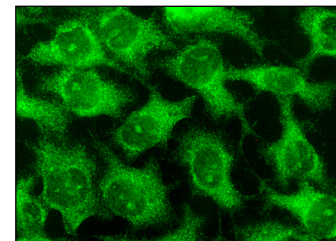
### STORAGE

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> (L-19): sc-1041. Western blot analysis of Bcl-x expression in non-transfected: sc-117752 (A) and human Bcl-x transfected: sc-159338 (B) 293T whole cell lysates.



Bcl-x<sub>S/L</sub> (L-19): sc-1041. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

### SELECT PRODUCT CITATIONS

- Shimizu, S., et al. 1999. Bcl-2 family proteins regulate the release of apoptogenic cytochrome c by the mitochondrial channel VDAC. *Nature* 399: 483-487.
- Wang, X., et al. 2010. Changes in the level of apoptosis-related proteins in Jurkat cells infected with HIV-1 versus HIV-2. *Mol. Cell. Biochem.* 337: 175-183.
- Palozza, P., et al. 2010. Lycopene prevents 7-ketocholesterol-induced oxidative stress, cell cycle arrest and apoptosis in human macrophages. *J. Nutr. Biochem.* 21: 34-46.
- Lin, H., et al. 2010. Activation of a nuclear factor of activated T-lymphocyte-3 (NFAT3) by oxidative stress in carboplatin-mediated renal apoptosis. *Br. J. Pharmacol.* 161: 1661-1676.
- Lin, H., et al. 2010. Adiponectin-mediated heme oxygenase-1 induction protects against iron-induced liver injury via a PPARα dependent mechanism. *Am. J. Pathol.* 177: 1697-1709.
- Lee, S.W., et al. 2011. Angiopoietin-1 protects heart against ischemia/reperfusion injury through VE-cadherin dephosphorylation and myocardial integrin-β1/ERK/caspase-9 phosphorylation cascade. *Mol. Med.* 17: 1095-1106.

### RESEARCH USE

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

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Try **Bcl-x<sub>S/L</sub> (D-3): sc-271121** or **Bcl-x<sub>S/L</sub> (4H33): sc-70418**, our highly recommended monoclonal alternatives to Bcl-x<sub>S/L</sub> (L-19).