

Bcl-x_{S/L} (S-18): sc-634

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_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} (S-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of Bcl-x_{S/L} of human origin.

PRODUCT

Each vial contains either 100 µg (sc-634) or 200 µg (sc-634-G) IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-634 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for ChIP application, sc-634 X, 200 µg/0.1 ml; and as agarose conjugate for immunoprecipitation, sc-634 AC, 500 µg/0.25 ml agarose in 1 ml.

APPLICATIONS

Bcl-x_{S/L} (S-18) is recommended for detection of Bcl-x_S and Bcl-x_L 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), 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_{S/L} (S-18) is also recommended for detection of Bcl-x_S and Bcl-x_L in additional species, including equine, canine, bovine and porcine.

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.

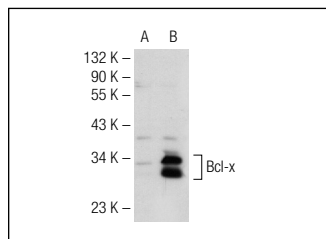
Bcl-x_{S/L} (S-18) X TransCruz antibody is recommended for ChIP assays.

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

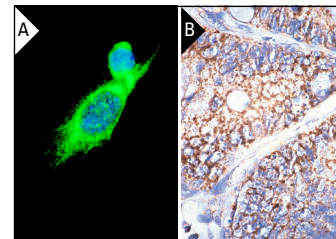
STORAGE

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} (S-18): sc-634. 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_{S/L} (S-18): sc-634. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic immunostaining and nuclear DAPI counterstain (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human colon carcinoma tissue showing membrane and cytoplasmic localization (B).

SELECT PRODUCT CITATIONS

1. Akbar, A., et al. 1996. Interleukin-2 receptor common γ -chain signaling cytokines regulate activated T cell apoptosis in response to growth factor withdrawal: selective induction of anti-apoptotic (Bcl-2, Bcl-x_L) but not pro-apoptotic (Bax, Bcl-x_S) gene expression. *Eur. J. Immunol.* 26: 294-299.
2. Giulianelli, S., et al. 2012. Estrogen receptor α mediates progesterone-induced mammary tumor growth by interacting with progesterone receptors at the Cyclin D1/MYC promoters. *Cancer Res.* 72: 2416-2427.
3. Eno, C.O., et al. 2012. The Bcl-2 proteins Noxa and Bcl-x_L co-ordinately regulate oxidative stress-induced apoptosis. *Biochem. J.* 444: 69-78.
4. Eno, C.O., et al. 2012. Distinct roles of mitochondria- and ER-localized Bcl-x_L in apoptosis resistance and Ca²⁺ homeostasis. *Mol. Biol. Cell* 23: 2605-2618.
5. Sutinen, E.M., et al. 2012. Pro-inflammatory interleukin-18 increases Alzheimer's disease-associated amyloid- β production in human neuron-like cells. *J. Neuroinflammation* 9: 199.
6. Jia, Y., et al. 2012. Endogenous erythropoietin signaling facilitates skeletal muscle repair and recovery following pharmacologically induced damage. *FASEB J.* 26: 2847-2858.
7. Kuo, C.Y., et al. 2012. Apoptosis induced by hepatitis B virus X protein in a CCL13-HBx stable cell line. *Oncol. Rep.* 28: 127-132.

RESEARCH USE

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

MONOS
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Try **Bcl-x_{S/L} (D-3): sc-271121** or **Bcl-x_{S/L} (4H33): sc-70418**, our highly recommended monoclonal alternatives to Bcl-x_{S/L} (S-18).