

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 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-634 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-634 AC, 500 µg/0.25 ml agarose in 1 ml.

Available as TransCruz reagent for ChIP application, sc-634 X, 200 µg/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 canine, bovine and porcine.

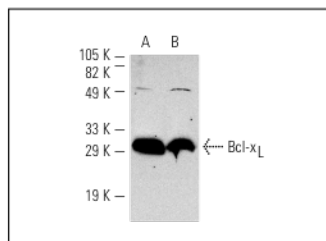
Suitable for use as control antibody for Bcl-x_{S/L} siRNA (h): sc-29216, Bcl-x_{S/L} siRNA (m): sc-29217, Bcl-x_{S/L} shRNA Plasmid (h): sc-29216-SH, Bcl-x_{S/L} shRNA Plasmid (m): sc-29217-SH, Bcl-x_{S/L} shRNA (h) Lentiviral Particles: sc-29216-V and Bcl-x_{S/L} shRNA (m) Lentiviral Particles: sc-29217-V.

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

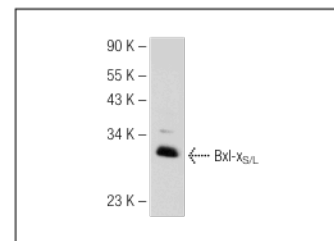
STORAGE

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

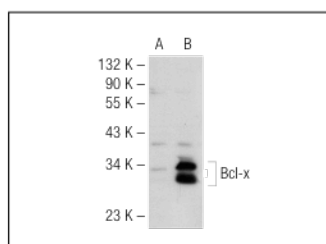
DATA



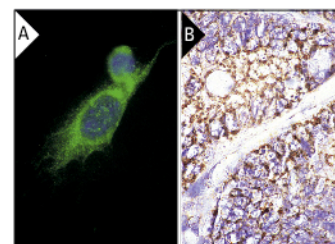
Bcl-x_{S/L} (S-18): sc-634. Western blot analysis of Bcl-x_L expression in BJAB (A) and Ramos (B) whole cell lysates.



Bcl-x_{S/L} (S-18): sc-634. Western blot analysis of Bcl-x_{S/L} expression in K-562 whole cell lysate.



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) and immunoperoxidase staining of formalin-fixed, paraffin-embedded human colon carcinoma tissue showing membrane and cytoplasmic localization (B).

SELECT PRODUCT CITATIONS

- Fussenegger, M., et al. 1998. Controlled proliferation by multigene metabolic engineering enhances the productivity of Chinese hamster ovary cells. *Nat. Biotechnol.* 16: 468-472.
- Oda, E., et al. 2000. Noxa, a BH3-only member of the Bcl-2 family and candidate mediator of p53-induced apoptosis. *Science* 288: 1053-1058.
- Su, T., et al. 2002. PKC β controls IκB kinase lipid raft recruitment and activation in response to BCR signaling. *Nat. Immunol.* 3: 780-786.
- Olberding, K.E., et al. 2010. Actinomycin D synergistically enhances the efficacy of the BH3 mimetic: ABT-737 by downregulating Mcl-1 expression. *Cancer Biol. Ther.* 10: E-Published.
- Liu, F.T., et al. 2010. CD160 signaling mediates PI3K-dependent survival and growth signals in chronic lymphocytic leukemia. *Blood* 115: 3079-3088.
- Caja, L., et al. 2010. Dissecting the effect of targeting the epidermal growth factor receptor on TGF-β-induced-apoptosis in human hepatocellular carcinoma cells. *J. Hepatol.* E-Published.

RESEARCH USE

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