SANTA CRUZ BIOTECHNOLOGY, INC.

Bcl-x_L (H-62): sc-7195

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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_L (H-62) is a rabbit polyclonal antibody raised against amino acids 126-188 mapping at the C-terminus of Bcl-x_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.

APPLICATIONS

Bcl-x_L (H-62) is recommended for detection of 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_L (H-62) is also recommended for detection of Bcl-x_L in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Bcl-x_L siRNA (h): sc-43630, Bcl-x_L siRNA (m): sc-44802, Bcl-x_L shRNA Plasmid (h): sc-43630-SH, Bcl-x_L shRNA Plasmid (m): sc-44802-SH, Bcl-x_L shRNA (h) Lentiviral Particles: sc-43630-V and Bcl-x_L shRNA (m) Lentiviral Particles: sc-44802-V.

Molecular Weight of Bcl-x_L: 30 kDa.

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

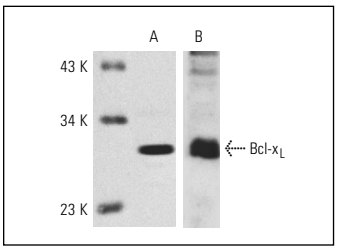
STORAGE

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

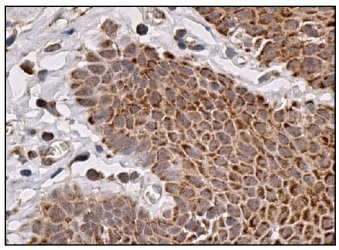
RESEARCH USE

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

DATA



Western blot analysis of Bcl-x_L expression in BJAB whole cell lysates. Antibodies tested include Bcl-x_L (H-62): sc-7195 (**A**) and Bcl-x_L (H-5): sc-8392 (**B**).



Bcl-x_L (H-62): sc-7195. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of squamous epithelial cells.

SELECT PRODUCT CITATIONS

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4. Liu, Z.Z., et al. 2007. Alternol inhibits proliferation and induces apoptosis in mouse lymphocyte leukemia (L1210) cells. Mol. Cell. Biochem. 306: 115-122.
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6. Kankuri, E., et al. 2008. Fibroblast nemosis arrests growth and induces differentiation of human leukemia cells. Int. J. Cancer 122: 1243-1252.
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11. Seervi, M., et al. 2011. Essential requirement of cytochrome c release for caspase activation by procaspase-activating compound defined by cellular models. Cell Death Dis. 2: e207.