

Bcl-x_{S/L} (M-125): sc-1690

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} (M-125) is a rabbit polyclonal antibody raised against amino acids 1-125 mapping at the N-terminus of Bcl-x_{S/L} of mouse 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_{S/L} (M-125) 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} (M-125) 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.

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

Positive Controls: BJAB whole cell lysate: sc-2207, Bcl-x (h): 293T Lysate: sc-159338 or K-562 whole cell lysate: sc-2203.

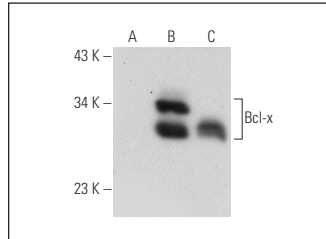
STORAGE

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

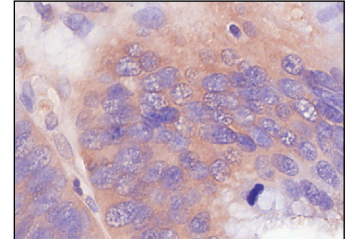
RESEARCH USE

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

DATA



Bcl-x_{S/L} (M-125): sc-1690. Western blot analysis of Bcl-x expression in non-transfected 293T: sc-117752 (A), human Bcl-x transfected 293T: sc-159338 (B) and K-562 (C) whole cell lysates.



Bcl-x_{S/L} (M-125): sc-1690. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human colon tumor showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

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- Ryu, J.K., et al. 2006. SK-7041, a new histone deacetylase inhibitor, induces G₂-M cell cycle arrest and apoptosis in pancreatic cancer cell lines. *Cancer Lett.* 237: 143-154.
- You, Z., et al. 2006. Interleukin-17 receptor-like gene is a novel antiapoptotic gene highly expressed in androgen-independent prostate cancer. *Cancer Res.* 66: 175-183.
- Beer-Hammer, S., et al. 2010. The catalytic PI3K isoforms p110γ and p110δ contribute to B cell development and maintenance, transformation, and proliferation. *J. Leukoc. Biol.* 87: 1083-1095.
- Liu, X., et al. 2011. Automated microinjection of recombinant Bcl-x into mouse zygotes enhances embryo development. *PLoS ONE* 6: e21687.
- Plötz, M., et al. 2012. Disruption of the VDAC2-Bak interaction by Bcl-x_S mediates efficient induction of apoptosis in melanoma cells. *Cell Death Differ.* 19: 1928-38.
- Plötz, M., et al. 2012. Mutual regulation of Bcl-2 proteins independent of the BH3 domain as shown by the BH3-lacking protein Bcl-x_{AK}. *PLoS ONE* 7: e34549.
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