SANTA CRUZ BIOTECHNOLOGY, INC.

Bcl-x_L (44): sc-136207

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. Overexpression 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 (44) is a mouse monoclonal antibody raised against amino acids 18-233 of Bcl-x_L of human origin.

PRODUCT

Each vial contains 50 µg IgG_1 in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Bcl-x_L (44) 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Bcl-x_L siRNA (h): sc-43630, Bcl-x_L siRNA (m): sc-44802, Bcl-x_L siRNA (r): sc-270538, Bcl-x_L shRNA Plasmid (h): sc-43630-SH, Bcl-x_L shRNA Plasmid (m): sc-44802-SH, Bcl-x_L shRNA Plasmid (r): sc-270538-SH, Bcl-x_L shRNA (h) Lentiviral Particles: sc-43630-V, Bcl-x_L shRNA (m) Lentiviral Particles: sc-44802-V and Bcl-x_L shRNA (r) Lentiviral Particles: sc-270538-V.

Molecular Weight of Bcl-x_L: 30 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or human endothelial tissue extract.

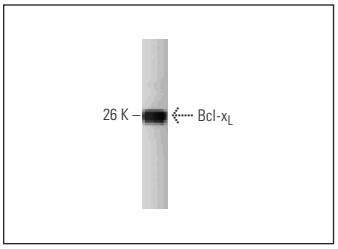
STORAGE

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. Not for resale.

DATA



Bcl-x_L(44): sc-136207. Western blot analysis of Bcl-x_L expression in human endothelial tissue extract.

SELECT PRODUCT CITATIONS

1. Suo, H., et al. 2015. Induction of apoptosis in HCT-116 colon cancer cells by polysaccharide of *Larimichthys crocea* swim bladder. Oncol. Lett. 9: 972-978.
2. Fu, Y., et al. 2017. Prodelphinidins isolated from Chinese bayberry leaves induces apoptosis via the p53-dependent signaling pathways in OVCAR-3 human ovarian cancer cells. Oncol. Lett. 13: 3210-3218.
3. Luan, Y.P., et al. 2018. Tsoong induces apoptosis and inhibits proliferation, migration and invasion of pancreatic ductal adenocarcinoma cells. Mol. Med. Rep. 17: 3527-3536.
4. Tian, F., et al. 2018. MicroRNA-519a inhibits the proliferation and promotes the apoptosis of ovarian cancer cells through targeting signal transducer and activator of transcription 3. Exp. Ther. Med. 15: 1819-1824.
5. Cappabianca, L., et al. 2019. Discovery, characterization and potential roles of a novel NF-YAx splice variant in human neuroblastoma. J. Exp. Clin. Cancer Res. 38: 482.
6. Oh, J.S., et al. 2020. Formononetin induces apoptotic cell death through the suppression of mitogen-activated protein kinase and nuclear factor-κB phosphorylation in FaDu human head and neck squamous cell carcinoma cells. Oncol. Rep. 43: 700-710.
7. Liu, Y., et al. 2020. C1222C deletion in exon 8 of ABL1 is involved in carcinogenesis and cell cycle control of colorectal cancer through IRS1/PI3K/Akt pathway. Front. Oncol. 10: 1385.
8. Wang, X., et al. 2020. *Stenotrophomonas maltophilia* outer membrane protein A induces epithelial cell apoptosis via mitochondrial pathways. J. Microbiol. 58: 868-877.

CONJUGATES

See **Bcl-x_L (H-5): sc-8392** for Bcl-x_L antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.