SANTA CRUZ BIOTECHNOLOGY, INC.

Bcl-x_{S/L} (2H12): sc-23958



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

 $Bcl-x_{S/L}$ (2H12) is a mouse monoclonal antibody raised against an N-terminal peptide (amino acids 3-14) common to human and mouse $Bcl-x_1$ and $Bcl-x_S$.

PRODUCT

Each vial contains 200 $\mu g\, lgG_{2a}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

 $\begin{array}{l} {\sf Bcl-x_{S/L}} \ (2H12) \mbox{ is recommended for detection of } {\sf Bcl-x_L} \mbox{ and } {\sf Bcl-x_S} \mbox{ of mouse, rat} \\ {\sf and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 \mbox{ } \mu g \mbox{ per 100-500 } \mu g \mbox{ of total protein} \\ {\sf (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) \mbox{ and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500). \end{array}$

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

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

Positive Controls: Ramos cell lysate: sc-2216, NAMALWA cell lysate: sc-2234 or C6 whole cell lysate: sc-364373.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

STORAGE

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

DATA





Bcl- $x_{S/L}$ (2H12): sc-23958. Western blot analysis of Bcl- $x_{S/L}$ expression in BJAB (**A**), NAMALWA (**B**), Ramos (**C**), HCT-116 (**D**) and NIH/313 (**E**) whole cell lysates. Detection reagent used: m-lgG₂₈ BP-HRP: sc-547731 Bcl-x_{S/L} (2H12): sc-23958. Western blot analysis of Bcl-x_{S/L} expression in Ramos (A), HCT-116 (B), C6 (C) and NAMALWA (D) whole cell lysates.

SELECT PRODUCT CITATIONS

- 1. Kumaraguruparan, R., et al. 2006. Of humans and canines: a comparative evaluation of heat shock and apoptosis-associated proteins in mammary tumors. Clin. Chim. Acta 365: 168-176.
- Datta, S., et al. 2007. Bmi-1 cooperates with H-Ras to transform human mammary epithelial cells via dysregulation of multiple growth-regulatory pathways. Cancer Res. 67: 10286-10295.
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- Sharma, R., et al. 2010. Role of lipid peroxidation in cellular responses to D,L-sulforaphane, a promising cancer chemopreventive agent. Biochemistry 49: 3191-3202.
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- Wu, J.L., et al. 2016. Temporal regulation of Lsp1 O-GlcNAcylation and phosphorylation during apoptosis of activated B cells. Nat. Commun. 7: 12526.
- Kroon, J., et al. 2016. Glucocorticoid receptor antagonism reverts docetaxel resistance in human prostate cancer. Endocr. Relat. Cancer 23: 35-45.
- 9. Pham, C.H., et al. 2021. Anticancer effects of propionic acid inducing cell death in cervical cancer cells. Molecules 26: 4951.



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.