

Bcl-x_L (H-5): sc-8392

BACKGROUND

The Bcl-2 gene was isolated at the chromosomal breakpoint of t 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 (H-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 165-190 at the C-terminus of Bcl-x_{S/L} of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Bcl-x_L (H-5) is available conjugated to agarose (sc-8392 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to either phycoerythrin (sc-8392 PE), fluorescein (sc-8392 FITC), Alexa Fluor[®] 488 (sc-8392 AF488), Alexa Fluor[®] 546 (sc-8392 AF546), Alexa Fluor[®] 594 (sc-8392 AF594) or Alexa Fluor[®] 647 (sc-8392 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-8392 AF680) or Alexa Fluor[®] 790 (sc-8392 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, Bcl-xL (H-5) is available conjugated to either TRITC (sc-8392 TRITC, 200 µg/ml) or Alexa Fluor[®] 405 (sc-8392 AF405, 200 µg/ml), 100 tests in 2 ml, for IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-8392 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

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

PROTOCOLS

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

APPLICATIONS

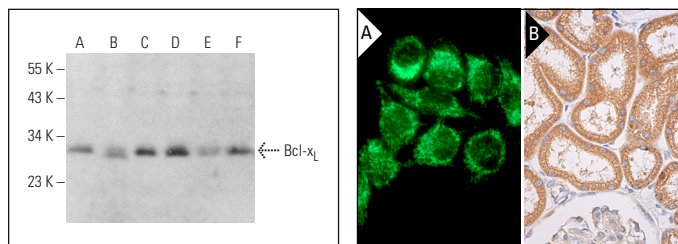
Bcl-x_L (H-5) is recommended for detection of Bcl-x_L of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with Bcl-x_S.

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: NAMALWA cell lysate: sc-2234, NIH/3T3 whole cell lysate: sc-2210 or C2C12 whole cell lysate: sc-364188.

DATA



Bcl-x_L (H-5): sc-8392. Western blot analysis of Bcl-x_L expression in NAMALWA (A), NIH/3T3 (B), C2C12 (C), Raji (D), Ramos (E) and GA-10 (F) whole cell lysates.

Bcl-x_L (H-5) Alexa Fluor[®] 488: sc-8392 AF488. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Bcl-x_L (H-5): sc-8392. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules (B).

SELECT PRODUCT CITATIONS

- Roth, K.A., et al. 2000. Epistatic and independent functions of caspase-3 and Bcl-x_L in developmental programmed cell death. Proc. Natl. Acad. Sci. USA 97: 466-471.
- Yee, Y.H., et al. 2021. Sustained IKKβ phosphorylation and NFκB activation by superoxide-induced peroxynitrite-mediated nitrotyrosine modification of B56γ3 and PP2A inactivation. Redox Biol. 41: 101834.
- Miller, D.R., et al. 2022. Dynamics of antioxidant heme oxygenase-1 and pro-oxidant p66Shc in promoting advanced prostate cancer progression. Free Radic. Biol. Med. 193: 274-291.
- Liu, J., et al. 2023. TMT-based proteomics profile reveals changes of the entorhinal cortex in a kainic acid model of epilepsy in mice. Neurosci. Lett. 800: 137127.

RESEARCH USE

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