

Bcl-x_L (4): sc-136132

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: Bcl211 (mouse) mapping to 2 H1.

SOURCE

Bcl-x_L (4) is a mouse monoclonal antibody raised against amino acids 18-233 of Bcl-x_L of rat origin.

PRODUCT

Each vial contains 50 µg IgG_{2b} in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Bcl-x_L (4) is recommended for detection of Bcl-x_L of mouse and rat 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); non cross-reactive with Bcl-x_S or Bcl-2.

Suitable for use as control antibody for Bcl-x_L siRNA (m): sc-44802, Bcl-x_L siRNA (r): sc-270538, Bcl-x_L shRNA Plasmid (m): sc-44802-SH, Bcl-x_L shRNA Plasmid (r): sc-270538-SH, 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: mouse macrophage tissue extract or C6 whole cell lysate: sc-364373.

STORAGE

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

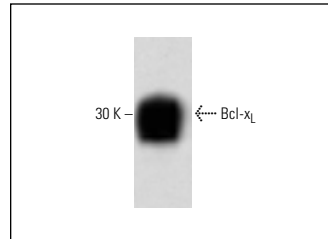
PROTOCOLS

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

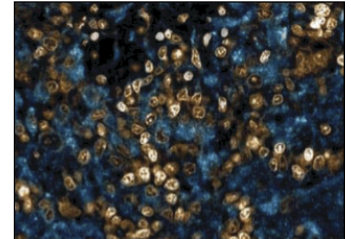
RESEARCH USE

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

DATA



Bcl-x_L (4): sc-136132. Western blot analysis of Bcl-x_L expression in mouse macrophage tissue extract.



Bcl-x_L (4): sc-136132. Immunofluorescence staining of rabbit brain cells showing nuclear localization.

SELECT PRODUCT CITATIONS

- Mulik, S., et al. 2011. Activation of endothelial roundabout receptor 4 reduces the severity of virus-induced keratitis. *J. Immunol.* 186: 7195-7204.
- Zhu, Y., et al. 2017. Isoflurane anesthesia induces liver injury by regulating the expression of Insulin-like growth factor 1. *Exp. Ther. Med.* 13: 1608-1613.
- Zhao, X., et al. 2017. Physapubescin B inhibits tumorigenesis and circumvents taxol resistance of ovarian cancer cells through Stat3 signaling. *Oncotarget* 8: 70130-70141.
- Zheng, Y., et al. 2017. Genistein exerts potent antitumour effects alongside anaesthetic, propofol, by suppressing cell proliferation and nuclear factor-κB-mediated signalling and through upregulating microRNA-218 expression in an intracranial rat brain tumour model. *J. Pharm. Pharmacol.* 69: 1565-1577.
- Zhu, W., et al. 2017. Combination of sorafenib and Valproic acid synergistically induces cell apoptosis and inhibits hepatocellular carcinoma growth via down-regulating Notch3 and pAkt. *Am. J. Cancer Res.* 7: 2503-2514.
- Ma, Y., et al. 2018. Anticancer effect of exogenous hydrogen sulfide in cisplatin-resistant A549/DDP cells. *Oncol. Rep.* 39: 2969-2977.
- Sun, Z.Q., et al. 2019. Myricetin attenuates the severity of seizures and neuroapoptosis in pentylenetetrazole kindled mice by regulating the of BDNF-TrkB signaling pathway and modulating matrix metalloproteinase-9 and GABA_A. *Exp. Ther. Med.* 17: 3083-3091.
- Chleilat, E., et al. 2020. TGF-β signaling regulates SLC8A3 expression and prevents oxidative stress in developing midbrain dopaminergic and dorsal raphe serotonergic neurons. *Int. J. Mol. Sci.* 21: 2735.

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.