

## Bcl-x $\beta$ (C-20): sc-8277

### BACKGROUND

Members of the Bcl-2 family of proteins are characterized by their ability to modulate cell death (apoptosis) under a broad range of physiologic conditions. Bcl-2, Bcl-x<sub>L</sub> and several related proteins function to inhibit apoptosis, whereas other members of the Bcl-2 family, such as Bax, Bak and Bim, enhance cell death under various conditions. For instance, Bcl-x<sub>L</sub> represses cell death, while its shorter form, Bcl-x<sub>S</sub>, promotes apoptosis. Two additional splice variants of Bcl-x have been identified, Bcl-x $\beta$  and Bcl-x $\gamma$ . Bcl-x $\beta$  may be involved in inhibiting apoptosis in neurons. Bcl-x $\gamma$  expression is associated with ligation of the T cell receptor (TCR) in mature T cells where it appears to be necessary for the inhibition of TCR-dependent apoptosis. Bcl-x $\gamma$  has also been detected in thymocytes.

### REFERENCES

- Nunez, G., et al. 1990. Deregulated Bcl-2 gene expression selectively prolongs survival of growth factor-deprived hemopoietic cell lines. *J. Immunol.* 144: 3602-3610.
- Hockenbery, D.M., et al. 1991. Bcl-2 protein is topographically restricted in tissues characterized by apoptotic cell death. *Proc. Natl. Acad. Sci. USA* 88: 6961-6965.
- Oltavi, Z.N., et al. 1993. Bcl-2 heterodimerizes *in vivo* with a conserved homolog, Bax, that accelerates programmed cell death. *Cell* 74: 609-619.
- Gottschalk, A.R., et al. 1994. Identification of immunosuppressant-induced apoptosis in a murine B-cell line and its prevention by Bcl-x but not Bcl-2. *Proc. Natl. Acad. Sci. USA* 91: 7350-7354.
- Chittenden, T., et al. 1995. Induction of apoptosis by the Bcl-2 homologue Bak. *Nature* 374: 733-736.
- Kiefer, M.C., et al. 1995. Modulation of apoptosis by the widely distributed Bcl-2 homologue Bak. *Nature* 374: 736-739.
- Yang, X.F., et al. 1997. A novel Bcl-x isoform connected to the T cell receptor regulates apoptosis in T cells. *Immunity* 7: 629-639.
- O'Connor, L., et al. 1998. Bim: a novel member of the Bcl-2 family that promotes apoptosis. *EMBO J.* 17: 384-395.

### CHROMOSOMAL LOCATION

Genetic locus: BCL2L1 (human) mapping to 20q11.21; Bcl2l1 (mouse) mapping to 2 H1.

### SOURCE

Bcl-x $\beta$  (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Bcl-x $\beta$  of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8277 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

Bcl-x $\beta$  (C-20) is recommended for detection of Bcl-x $\beta$  of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

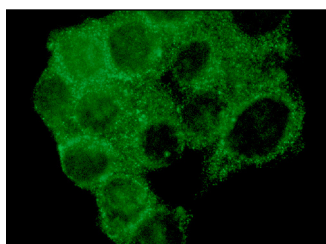
Suitable for use as control antibody for Bcl-x $\beta$  siRNA (m): sc-37296, Bcl-x $\beta$  shRNA Plasmid (m): sc-37296-SH and Bcl-x $\beta$  shRNA (m) Lentiviral Particles: sc-37296-V.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### DATA



Bcl-x $\beta$  (C-20): sc-8277. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic and perinuclear localization.

### SELECT PRODUCT CITATIONS

- Miccio, A., et al. 2010. NuRD mediates activating and repressive functions of GATA-1 and FOG-1 during blood development. *EMBO J.* 29: 442-456.

### 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.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.