SANTA CRUZ BIOTECHNOLOGY, INC.

Bcl-xγ (C-19): sc-8275

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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_L 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_L represses cell death, while its shorter form, Bcl-x_S, promotes apoptosis. Two additional splice variants of Bcl-x have been identified, Bcl-xβ and Bcl-xγ. Bcl-xβ may be involved in inhibiting apoptosis in neurons. Bcl-xγ 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-xγ has also been detected in thymocytes.

REFERENCES

1. 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.
2. 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.
3. 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.
4. 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.
5. Chittenden, T., et al. 1995. Induction of apoptosis by the Bcl-2 homologue Bak. Nature 374: 733-736.
6. Kiefer, M.C., et al. 1995. Modulation of apoptosis by the widely distributed Bcl-2 homologue Bak. Nature 374: 736-739.
7. 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.
8. 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 (mouse) mapping to 2 H1.

SOURCE

Bcl-xγ (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Bcl-xγ of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8275 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Bcl-xγ (C-19) is recommended for detection of Bcl-xγ 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)], 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-xγ siRNA (m): sc-37297, Bcl-xγ shRNA Plasmid (m): sc-37297-SH and Bcl-xγ shRNA (m) Lentiviral Particles: sc-37297-V.

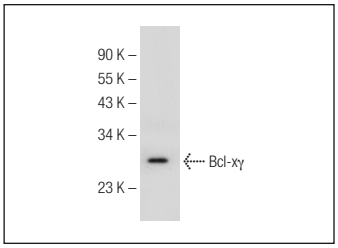
Molecular Weight of Bcl-xγ: 26 kDa.

Positive Controls: rat spleen extract: sc-2397 or TK-1 whole cell lysate: sc-364798.

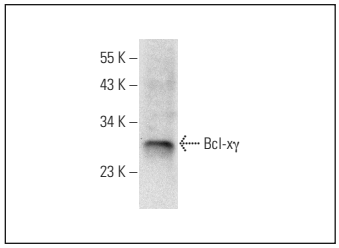
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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-xγ (C-19): sc-8275. Western blot analysis of Bcl-xγ expression in TK-1 whole cell lysate.



Bcl-xγ (C-19): sc-8275. Western blot analysis of Bcl-xγ expression in rat spleen 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.

PROTOCOLS

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