

Bcl-2 (m): 293T Lysate: sc-118779

BACKGROUND

Apoptosis is defined as a set of cascades which, when initiated, programs the cell to undergo lethal changes such as membrane blebbing, mitochondrial breakdown and DNA fragmentation. Bcl-2 is one among many key regulators of apoptosis, which are essential for proper development, tissue homeostasis and protection against foreign pathogens. Human Bcl-2 is an anti-apoptotic, membrane-associated oncoprotein that can promote cell survival through protein-protein interactions with other Bcl-2 related family members, such as the death suppressors Bcl-x_L, Mcl-1, Bcl-w and A1 or the death agonists Bax, Bak, Bik, Bad and BID. The anti-apoptotic function of Bcl-2 can also be regulated through proteolytic processing and phosphorylation. Bcl-2 may promote cell survival by interfering with the activation of the cytochrome c/Apaf-1 pathway through stabilization of the mitochondrial membrane. Mutations in the Bcl-2 gene can contribute to cancers where normal physiological cell death mechanisms are compromised by deregulation of the anti-apoptotic influence of Bcl-2.

REFERENCES

1. Kerr, J.F., et al. 1972. Apoptosis: a basic biological phenomenon with wide-ranging implications in tissue kinetics. *Br. J. Cancer* 26: 239-257.
2. Hockenbery, D., et al. 1990. Bcl-2 is an inner mitochondrial membrane protein that blocks programmed cell death. *Nature* 348: 334-336.
3. Alnemri, E.S., et al. 1992. Overexpressed full length human Bcl-2 extends the survival of baculovirus-infected Sf9 insect cells. *Proc. Natl. Acad. Sci. USA* 89: 7295-7299.
4. Reed, J.C. 1994. Bcl-2 and the regulation of programmed cell death. *J. Cell Biol.* 124: 1-6.
5. Yang, J., et al. 1997. Prevention of apoptosis by Bcl-2: release of cytochrome c from mitochondria blocked. *Science* 275: 1129-1132.
6. Adams, J.M., et al. 1998. The Bcl-2 protein family: arbiters of cell survival. *Science* 281: 1322-1326.
7. Ojala, P.M., et al. 2000. The apoptotic v-cyclin-Cdk6 complex phosphorylates and inactivates Bcl-2. *Nat. Cell Biol.* 2: 819-825.
8. Huang, Z. 2000. Bcl-2 family proteins as targets for anticancer drug design. *Oncogene* 19: 6627-6631.
9. Shroff, E.H., et al. 2007. Role of Bcl-2 family members in anoxia induced cell death. *Cell Cycle* 6: 807-809.

CHROMOSOMAL LOCATION

Genetic locus: Bcl2 (mouse) mapping to 1 E2.1.

PRODUCT

Bcl-2 (m): 293T Lysate represents a lysate of mouse Bcl-2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

Bcl-2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Bcl-2 antibodies. Recommended use: 10-20 µl per lane.

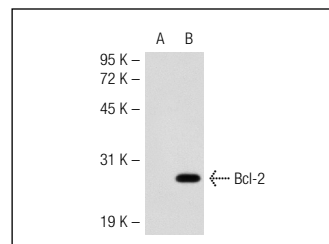
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Bcl-2 (YTH10C4): sc-81002 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Bcl-2 expression in Bcl-2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

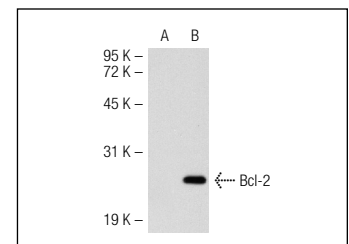
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Bcl-2 (YTH10C4): sc-81002. Western blot analysis of Bcl-2 expression in non-transfected: sc-117752 (A) and mouse Bcl-2 transfected: sc-118779 (B) 293T whole cell lysates.



Bcl-2 (10C4): sc-23960. Western blot analysis of Bcl-2 expression in non-transfected: sc-117752 (A) and mouse Bcl-2 transfected: sc-118779 (B) 293T whole cell lysates.

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.