Bcl-rambo (h5): 293 Lysate: sc-158295



The Power to Question

BACKGROUND

Apoptosis is defined as a set of cascades which, when initiated, program the cell to undergo lethal changes such as membrane blebbing, mitochondrial breakdown and DNA fragmentation. The Bcl-2 family of proteins plays a central regulatory role in apoptosis. Bcl-rambo, a member of the Bcl-2 family, localizes to the mitochondria and, like other Bcl-2 family members, contains all four BH domains. Although Bcl-rambo shares structural similarity to other Bcl-2 members, it differs from them in its unique C-terminal region. Bcl-rambo has a 250 amino acid sequence containing 2 tandem repeats that preceeds the membrane anchor region at its C-terminus. Additionally, it is the membrane anchor C-terminal region of Bcl-rambo, not its Bcl-2 homology motifs, that is responsible for its pro-apoptotic activity. Bcl-rambo induces apoptosis when overexpressed and appears to do so by promoting mitochondrial cytochrome c release. It may also facilitate the activation of caspase-3.

REFERENCES

- 1. Kerr, J.F., Wyllie, A.H. and Currie, A.R. 1972. Apoptosis: a basic biological phenomenon with wide-ranging implications in tissue kinetics. Br. J. Cancer 26: 239-257.
- Hockenbery, D., Nunez, G., Milliman, C., Schreiber, R.D. and Korsmeyer, S.J. 1990. Bcl-2 is an inner mitochondrial membrane protein that blocks programmed cell death. Nature 348: 334-336.
- Alnemri, E.S., Robertson, N.M., Fernandes, T.F., Croce, C.M. and Litwack, G. 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., Liu, X., Bhalla, K., Kim, C.N., Ibrado, A.M., Cai, J., Peng, T.I., Jones, D.P. and Wang, X. 1997. Prevention of apoptosis by Bcl-2: release of cytochrome c from mitochondria blocked. Science 275: 1129-1132.
- 6. Adams, J.M. and Cory, S. 1998. The Bcl-2 protein family: arbiters of cell survival. Science 281: 1322-1326.
- Kataoka, T., Holler, N., Micheau, O., Martinon, F., Tinel, A., Hofmann, K. and Tschopp, J. 2001. Bcl-rambo, a novel Bcl-2 homologue that induces apoptosis via its unique C-terminal extension. J. Biol. Chem. 276: 19548-19554.
- 8. Kaufmann, S.H. and Hengartner, M.O. 2001. Programmed cell death: alive and well in the new millennium. Trends Cell Biol. 11: 526-534.

CHROMOSOMAL LOCATION

Genetic locus: BCL2L13 (human) mapping to 22q11.21.

PRODUCT

Bcl-rambo (h5): 293 Lysate represents a lysate of human Bcl-rambo transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20 $^{\circ}$ C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

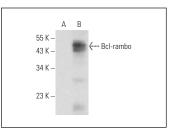
APPLICATIONS

Bcl-rambo (h5): 293 Lysate is suitable as a Western Blotting positive control for human reactive Bcl-rambo antibodies. Recommended use: 10-20 μ l per lane

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

Bcl-rambo (6D161): sc-70416 is recommended as a positive control antibody for Western Blot analysis of enhanced human Bcl-rambo expression in Bcl-rambo transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



BcI-rambo (6D161): sc-70416. Western blot analysis of BcI-rambo expression in non-transfected: sc-110760 (**A**) and human BcI-rambo transfected: sc-158295 (**B**) 293 whole cell Ivsates.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**