SANTA CRUZ BIOTECHNOLOGY, INC.

Bcl-rambo (h2): 293T Lysate: sc-128091

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

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2. 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.
3. 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.
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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.
7. 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 apop-tosis via its unique C-terminal extension. J. Biol. Chem. 276: 19548-19554.
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CHROMOSOMAL LOCATION

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

PRODUCT

Bcl-rambo (h2): 293T Lysate represents a lysate of human Bcl-rambo 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.

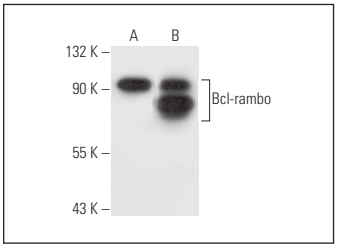
APPLICATIONS

Bcl-rambo (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Bcl-rambo antibodies. Recommended use: 10-20 µl per lane.

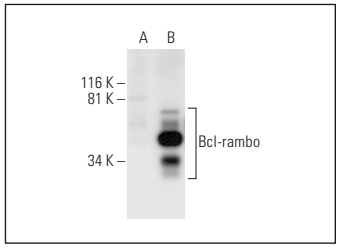
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Bcl-rambo (Rocky-2): sc-56020 is recommended as a positive control antibody for Western Blot analysis of enhanced human Bcl-rambo expression in Bcl-rambo transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



Bcl-rambo (Rocky-2): sc-56020. Western blot analysis of Bcl-rambo expression in non-transfected: sc-117752 (**A**) and human Bcl-rambo transfected: sc-128091 (**B**) 293T whole cell lysates.



Bcl-rambo (G-9): sc-390598. Western blot analysis of Bcl-rambo expression in non-transfected: sc-117752 (**A**) and human Bcl-rambo transfected: sc-128091 (**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.