

Bcl-rambo (6D161): sc-70416

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 precedes 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., 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 baculo-virus-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. and Cory, S. 1998. The Bcl-2 protein family: arbiters of cell survival. *Science* 281: 1322-1326.
7. Kataoka, T., et al. 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.

SOURCE

Bcl-rambo (6D161) is a mouse monoclonal antibody raised against amino acids 224-459 of Bcl-rambo of human origin.

PRODUCT

Each vial contains 50 µg IgG₁ in 500 µl of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

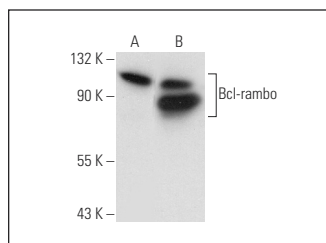
Bcl-rambo (6D161) is recommended for detection of Bcl-rambo of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Bcl-rambo siRNA (h): sc-62015, Bcl-rambo shRNA Plasmid (h): sc-62015-SH and Bcl-rambo shRNA (h) Lentiviral Particles: sc-62015-V.

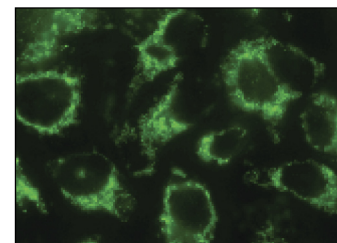
Molecular Weight of Bcl-rambo: 53 kDa.

Positive Controls: Bcl-rambo (h2): 293T Lysate: sc-128091 or HeLa whole cell lysate: sc-2200.

DATA



Bcl-rambo (6D161): sc-70416. 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 (6D161): sc-70416. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and membrane localization.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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