BAR (E-17): sc-11124

SANTA CRUZ®

BIOTECHNOLOGY

The Power to Question

BACKGROUND

Two converging apoptotic pathways, which are initiated either through the activation of death domain (DD) receptors by an extrinsic pathway or by an intrinsic pathway in the mitochondria, mediate the activation and progression of apoptosis within the cell. Both these pathways lead to the activation of the serine proteinase cascade (caspases) and to cleavage of these pro-caspases. A novel protein, BAR, for bifunctional apoptosis regulator, contains domains that enable it to interact with components of both major apoptosis pathways, where it negatively regulates apoptotic signaling. Like the other anti-apoptosis proteins BAP31 and FLIP, BAR contains a DED-like domain that is capable of suppressing apoptosis mediated at the receptor level. In addition, BAR contains a domain that also enables it to interact with the mitochondrial Bcl-2 family of proteins. The presence of these various RING, Sam, DED and TM domains suggests that BAR may serve as a scaffold protein that integrates signaling components of the cells apoptosis-regulatory machinery.

REFERENCES

1. Irmler, M., et al. 1997. Inhibition of death receptor signals by cellular FLIP. Nature 388: 190-195.

2. Chao, D.T., et al. 1998. Bcl-2 family: regulators of cell death. Annu. Rev. Immunol. 16: 395-419.

3. Ng, F.W., et al. 1998. Bcl-x$_L$ cooperatively associates with the BAP31 complex in the endoplasmic reticulum, dependent on procaspase-8 and CED-4 adaptor. J. Biol. Chem. 273: 3140-3143.

4. Reed, J.C. 2000. Mechanisms of apoptosis. Am. J. Pathol. 157: 1415-1430.

5. Zhang, H., et al. 2000. BAR: An apoptosis regulator at the intersection of caspases and Bcl-2 family proteins. Proc. Natl. Acad. Sci. USA 97: 2597-2602.

6. Roy, S., et al. 2000. Programmed cell-death regulation: basic mechanisms and therapeutic opportunities. Mol. Med. Today 6: 264-266.

7. Stegh, A.H., et al. 2002. Inactivation of caspase-8 on mitochondria of Bcl-x$_L$-expressing MCF7-FAS cells: role for the bifunctional apoptosis regulator protein. J. Biol. Chem. 277: 4351-4360.

CHROMOSOMAL LOCATION

Genetic locus: BFAR (human) mapping to 16p13.12; Bfar (mouse) mapping to 16 A1.

SOURCE

BAR (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of BAR of human 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-11124 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BAR (E-17) is recommended for detection of BAR of mouse, rat and 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)], 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).

BAR (E-17) is also recommended for detection of BAR in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for BAR siRNA (h): sc-37291, BAR siRNA (m): sc-37292, BAR shRNA Plasmid (h): sc-37291-SH, BAR shRNA Plasmid (m): sc-37292-SH, BAR shRNA (h) Lentiviral Particles: sc-37291-V and BAR shRNA (m) Lentiviral Particles: sc-37292-V.

Molecular Weight of BAR: 53 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or RAW 264.7 whole cell lysate: sc-2211.

DATA
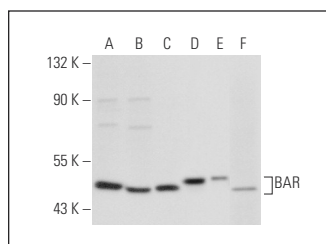
BAR (E-17): sc-11124. Western blot analysis of BAR expression in HeLa (**A**), Hep G2 (**B**), Jurkat (**C**), RAW 264.7 (**D**) and KNRK (**E**) whole cell lysates and mouse spleen tissue extract (**F**).

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.

MONOS
Satisfation
Guaranteed

Try **BAR (L-16): sc-101217**, our highly recommended monoclonal alternative to BAR (E-17).