

# Bad (C-20): sc-943

## BACKGROUND

The Bcl-2 family of proteins is characterized by its ability to modulate cell death (apoptosis) under a broad range of physiologic conditions. Bcl-2 and several related proteins function to inhibit apoptosis, while other members of the Bcl-2 family, such as Bax and Bak, enhance cell death under various conditions. For instance, Bcl-x<sub>L</sub> represses cell death, while its shorter form, Bcl-x<sub>S</sub>, promotes apoptosis. A protein designated Bad exhibits homology to Bcl-2, limited to the BH1 and BH2 domains. Bad functions to dimerize with Bcl-x<sub>L</sub> and with Bcl-2, but not with Bax, Bcl-x<sub>S</sub>, Mcl-1, A1 or itself. In mammalian cells, Bad binds with greater affinity to Bcl-x<sub>L</sub> than to Bcl-2, and reverses the death repressor activity of Bcl-x<sub>L</sub> but not Bcl-2. Dimerization of Bad with Bcl-x<sub>L</sub> results in displacement of Bax from Bcl-x<sub>L</sub>:Bax complexes, thereby causing restoration of Bax-mediated apoptosis.

## CHROMOSOMAL LOCATION

Genetic locus: Bad (mouse) mapping to 19 A.

## SOURCE

Bad (C-20) is available as either rabbit (sc-943) or goat (sc-943-G) polyclonal affinity purified antibody raised against a peptide mapping at the C-terminus of Bad of mouse 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-943 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Bad (C-20) is recommended for detection of Bad of mouse and rat origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immuno-precipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Bad (C-20) is also recommended for detection of Bad in additional species, including equine and canine.

Suitable for use as control antibody for Bad siRNA (m): sc-29779, shRNA Plasmid (m): sc-29779-SH and Bad shRNA (m) Lentiviral Particles: sc-29779-V.

Molecular Weight of Bad: 25 kDa.

Positive Controls: mouse kidney extract: sc-2255, mouse prostate extract: sc-364249 or NIH/3T3 + serum-starved cell lysate: sc-2257.

## STORAGE

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

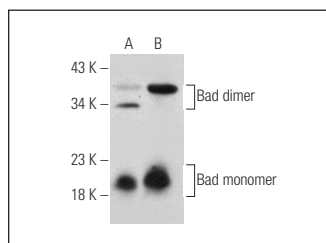
## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

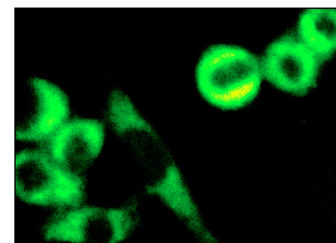
## RESEARCH USE

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

## DATA



Bad (C-20): sc-943. Western blot analysis of Bad expression in mouse prostate (A) and mouse kidney (B) tissue extracts.



Bad (C-20): sc-943. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

- Datta, S.R., et al. 1997. Akt phosphorylation of Bad couples survival signals to the cell intrinsic death machinery. *Cell* 91: 231-241.
- del Peso, L., et al. 1997. Interleukin-3 induced phosphorylation of BAD through the protein kinase Akt. *Science* 278: 687-689.
- Lizárraga-Mollinedo, E., et al. 2010. Early undernutrition increases glycogen content and reduces the activated forms of GSK3, AMPK, p38 MAPK, and JNK in the cerebral cortex of suckling rats. *J. Neurochem.* 112: 123-133.
- Deng, H., et al. 2010. IKK antagonizes activation-induced cell death of CD4<sup>+</sup> T cells in aged mice via inhibition of JNK activation. *Mol. Immunol.* 48: 287-293.
- Machado-Neto, J.A., et al. 2011. Knockdown of Insulin receptor substrate 1 reduces proliferation and downregulates Akt/mTOR and MAPK pathways in K562 cells. *Biochim. Biophys. Acta* 1813: 1404-1411.
- Polzien, L., et al. 2011. Bad contributes to RAF-mediated proliferation and cooperates with B-RAF-V600E in cancer signaling. *J. Biol. Chem.* 286: 17934-17944.
- Kuo, T.C., et al. 2011. WJ9708012 exerts anticancer activity through PKC-α related crosstalk of mitochondrial and endoplasmic reticulum stresses in human hormone-refractory prostate cancer cells. *Acta Pharmacol. Sin.* 32: 89-98.
- Deng, H., et al. 2011. Phosphorylation of Bcl-associated death protein (Bad) by erythropoietin-activated c-Jun N-terminal protein kinase 1 contributes to survival of erythropoietin-dependent cells. *Int. J. Biochem. Cell Biol.* 43: 409-415.

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