

# Bad (H-168): sc-7869

## 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 (human) mapping to 11q13.1; Bad (mouse) mapping to 19 A.

## SOURCE

Bad (H-168) is a rabbit polyclonal antibody raised against amino acids 1-168 representing full length Bad 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.

## APPLICATIONS

Bad (H-168) is recommended for detection of Bad 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).

Suitable for use as control antibody for Bad siRNA (h): sc-29778, Bad siRNA (m): sc-29779, Bad shRNA Plasmid (h): sc-29778-SH, Bad shRNA Plasmid (m): sc-29779-SH, Bad shRNA (h) Lentiviral Particles: sc-29778-V and Bad shRNA (m) Lentiviral Particles: sc-29779-V.

Molecular Weight of Bad: 25 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, MCF7 whole cell lysate: sc-2206 or mouse prostate extract: sc-364249.

## STORAGE

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

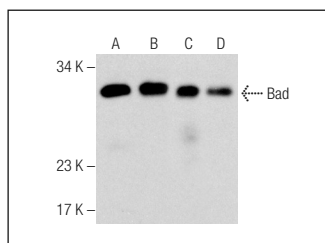
## PROTOCOLS

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

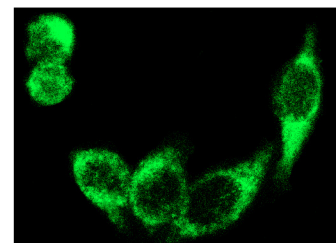
## RESEARCH USE

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

## DATA



Bad (H-168): sc-7869. Western blot analysis of Bad expression in BJAB (A) and MCF7 (B) whole cell lysates and mouse prostate (C) and rat prostate (D) tissue extracts.



Bad (H-168): sc-7869. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

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3. Paris, F., et al. 2001. Natural ceramide reverses Fas resistance of acid sphingomyelinase<sup>-/-</sup> hepatocytes. *J. Biol. Chem.* 276: 8297-8305.
4. Condorelli, F., et al. 2008. Inhibitors of histone deacetylase (HDAC) restore the p53 pathway in neuroblastoma cells. *Br. J. Pharmacol.* 153: 657-668.
5. Nuccitelli, R., et al. 2009. A new pulsed electric field therapy for melanoma disrupts the tumor's blood supply and causes complete remission without recurrence. *Int. J. Cancer* 125: 438-445.
6. Sosa Seda, I.M., et al. 2010. Noxa mediates hepatic stellate cell apoptosis by proteasome inhibition. *Hepatol. Res.* 40: 701-710.
7. Seal, S., et al. 2012. Vapor of volatile oils from *Litsea cubeba* seed induces apoptosis and causes cell cycle arrest in lung cancer cells. *PLoS ONE* 7: e47014.
8. Zhang, P., et al. 2013. Exon 4 deletion variant of epidermal growth factor receptor enhances invasiveness and cisplatin resistance in epithelial ovarian cancer. *Carcinogenesis* 34: 2639-2646.
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