

# BID (40): sc-135847

## BACKGROUND

Members of the Bcl-2 family of proteins interact to regulate programmed cell death, or apoptosis. Various homodimers and heterodimers formed by proteins in this family can either promote or inhibit apoptosis. Bcl-2 blocks cell death following a variety of stimuli and confers a death-sparing effect on certain hematopoietic cell lines following growth factor withdrawal. Additional apoptotic inhibitors in this family include A1, Bag-1, Bcl-w, Bcl-x and Mcl-1. Pro-apoptotic members of this family include Bax, Bad, Bak, Bik (NBK) and BID. BID contains a BH3 domain which allows it to dimerize with and counter the death repressor effects of Bcl-2. BID has also been shown to heterodimerize with Bcl-x and the death agonist Bax. BID is localized predominantly in the cytosol and is also present in membrane fractions. It is highly expressed in kidney and can also be detected in brain, spleen, liver, testis and lung.

## REFERENCES

- Vaux, D.L., et al. 1988. Bcl-2 promotes the survival of hemopoietic cells and cooperates with c-Myc to immortalize pre-B cells. *Nature* 335: 440-442.
- Nuñez, G., et al. 1990. Deregulated Bcl-2 gene expression selectively prolongs survival of growth factor-deprived hemopoietic cell lines. *J. Immunol.* 144: 3602-3610.
- Oltvai, Z.N., et al. 1993. Bcl-2 heterodimerizes *in vivo* with a conserved homolog, Bax, that accelerates programmed cell death. *Cell* 74: 609-619.
- Sato, T., et al. 1994. Interactions among members of the Bcl-2 protein family analyzed with a yeast two-hybrid system. *Proc. Natl. Acad. Sci. USA* 91: 9238-9242.
- Oltvai, Z.N. and Korsmeyer, C.J. 1994. Checkpoints of dueling dimers foil death wishes. *Cell* 79: 189-192.
- Yang, E., et al. 1996. Molecular thanatopsis: a discourse on the Bcl-2 family and cell death. *Blood* 88: 386-401.
- Wang, K., et al. 1996. BID: a novel BH3 domain-only death agonist. *Genes Dev.* 10: 2859-2869.
- Nagata, S. 1997. Apoptosis by death factor. *Cell* 88: 355-365.
- Alvarez, M.D., et al. 2006. Time-dependent onset of interferon- $\alpha$ 2b-induced apoptosis in isolated hepatocytes from preneoplastic rat livers. *Cytokine* 6: 245-253.

## CHROMOSOMAL LOCATION

Genetic locus: Bid (mouse) mapping to 6 F1.

## SOURCE

BID (40) is a mouse monoclonal antibody raised against amino acids 46-168 of BID of mouse origin.

## PRODUCT

Each vial contains 50  $\mu$ g IgG<sub>1</sub> in 500  $\mu$ l of PBS with < 0.1% sodium azide, 0.1% gelatin, 20% glycerol and 0.04% stabilizer protein.

## APPLICATIONS

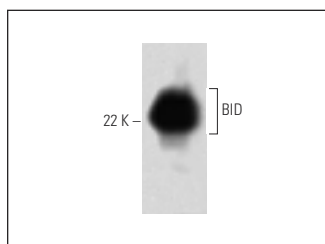
BID (40) is recommended for detection of BID of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for BID siRNA (m): sc-29801, BID shRNA Plasmid (m): sc-29801-SH and BID shRNA (m) Lentiviral Particles: sc-29801-V.

Molecular Weight of BID: 22 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, WEHI-231 whole cell lysate: sc-2213 or WEHI-3 cell lysate: sc-3815.

## DATA



BID (40): sc-135847. Western blot analysis of BID expression in mouse macrophages stimulated with LPS/IFN- $\gamma$ .

## SELECT PRODUCT CITATIONS

- Huang, G., et al. 2017. Notoginsenoside R1 attenuates glucose-induced podocyte injury via the inhibition of apoptosis and the activation of autophagy through the PI3K/Akt/mTOR signaling pathway. *Int. J. Mol. Med.* 39: 559-568.
- Zou, B., et al. 2017. Mangiferin induces apoptosis in human ovarian adenocarcinoma OVCAR3 cells via the regulation of Notch3. *Oncol. Rep.* 38: 1431-1441.
- Liu, P., et al. 2017. HCFU inhibits cervical cancer cells growth and metastasis by inactivating Wnt/ $\beta$ -catenin pathway. *J. Cell. Biochem.* E-published.
- Wang, H., et al. 2018. Mangiferin induces islet regeneration in aged mice through regulating p16<sup>INK4a</sup>. *Int. J. Mol. Med.* 41: 3231-3242.
- Huang, T., et al. 2021. Carbonic anhydrase 12 gene silencing reverses the sensitivity of paclitaxel in drug-resistant breast cancer cells. *Bioengineered.* E-published.

## 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. Not for resale.