

BID (E-7): sc-514622

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. Proapoptotic 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., et al. 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, MD. et al. 2007. Time-dependent onset of Interferon- α 2b-induced apoptosis in isolated hepatocytes from preneoplastic rat livers. *Cytokine* 36: 245-253

CHROMOSOMAL LOCATION

Genetic locus: BID (human) mapping to 22q11.21.

SOURCE

BID (E-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 172-195 at the C-terminus of BID of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

BID (E-7) is recommended for detection of BID of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 BID siRNA (h): sc-29800, BID shRNA Plasmid (h): sc-29800-SH and BID shRNA (h) Lentiviral Particles: sc-29800-V.

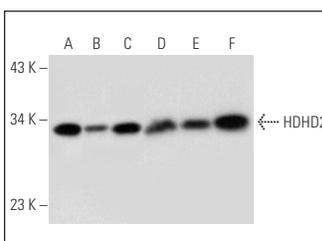
Molecular Weight of BID: 22 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HEK293T whole cell lysate: sc-45137 or Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HDHD2 (C-1): sc-514621. Western blot analysis of HDHD2 expression in mouse brain (A), mouse thymus (B) and human brain (C) tissue extracts and Hep G2 (D), MCF7 (E) and LNCaP (F) whole cell lysates.

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.