

# BID (B-3): sc-373939

## 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

BID (B-3) is a mouse monoclonal antibody raised against amino acids 1-195 representing full length BID of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BID (B-3) is available conjugated to agarose (sc-373939 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373939 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373939 PE), fluorescein (sc-373939 FITC), Alexa Fluor<sup>®</sup> 488 (sc-373939 AF488), Alexa Fluor<sup>®</sup> 546 (sc-373939 AF546), Alexa Fluor<sup>®</sup> 594 (sc-373939 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-373939 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-373939 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-373939 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

BID (B-3) 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 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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: PC-3 cell lysate: sc-2220, MCF7 whole cell lysate: sc-2206 or Jurkat whole cell lysate: sc-2204.

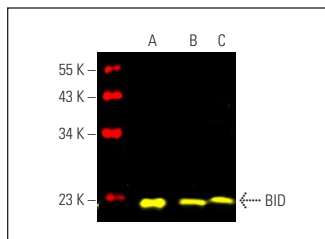
## STORAGE

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

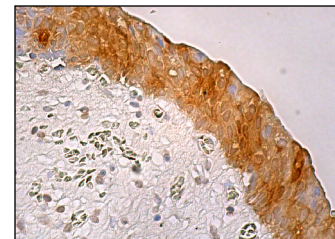
## RESEARCH USE

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

## DATA



BID (B-3) Alexa Fluor<sup>®</sup> 488: sc-373939 AF488. Direct fluorescent western blot analysis of BID expression in Jurkat (A), MCF7 (B) and PC-3 (C) whole cell lysates. Blocked with UltraCruz<sup>™</sup> Blocking Reagent: sc-516214. Cruz Marker<sup>™</sup> Molecular Weight Standards detected with Cruz Marker MW Tag-Alexa Fluor<sup>®</sup> 790: sc-516731.



BID (B-3): sc-373939. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing cytoplasmic staining of urothelial cells.

## SELECT PRODUCT CITATIONS

- Yadav, V.R., et al. 2013. Preclinical evaluation of 4-[3,5-bis(2-chlorobenzylidene)-4-oxo-piperidine-1-yl]-4-oxo-2-butenoic acid, in a mouse model of lung cancer xenograft. *Br. J. Pharmacol.* 170: 1436-1448.
- Orazizadeh, M., et al. 2015. Protective effect of  $\beta$ -carotene against titanium dioxide nanoparticles induced apoptosis in mouse testicular tissue. *Andrologia* 47: 816-825.
- Fu, Y.Y., et al. 2016. Analysis of transcription profile to reveal altered signaling pathways following the overexpression of human desumoylating isopeptidase 2 in pancreatic cancer cells. *Oncol. Lett.* 12: 4677-4684.
- Badawi, A., et al. 2017. Silencing of the mRNA-binding protein HuR increases the sensitivity of colorectal cancer cells to ionizing radiation through upregulation of caspase-2. *Cancer Lett.* 393: 103-112.
- Im, E., et al. 2018. Luteolin induces caspase-dependent apoptosis via inhibiting the Akt/osteopontin pathway in human hepatocellular carcinoma SK-Hep-1 cells. *Life Sci.* 209: 259-266.
- Lee, J., et al. 2019. HAP1 loss confers L-asparaginase resistance in ALL by downregulating the calpain-1-BID-caspase-3/12 pathway. *Blood* 133: 2222-2232.
- Lee, J., et al. 2021. D,L-methadone causes leukemic cell apoptosis via an OPRM1-triggered increase in IP3R-mediated ER Ca<sup>2+</sup> release and decrease in Ca<sup>2+</sup> efflux, elevating [Ca<sup>2+</sup>]<sub>i</sub>. *Sci. Rep.* 11: 1009.
- Rys, R.N., et al. 2021. Apoptotic blocks in primary non-Hodgkin B cell lymphomas identified by BH3 profiling. *Cancers* 13: 1002.

## PROTOCOLS

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

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