

Bim (H-5): sc-374358

BACKGROUND

Pro-apoptotic Bcl-2 family members promote cell death by neutralizing their anti-apoptotic relatives, which otherwise maintain cell viability by regulating caspase activity. Bim belongs to the BH3-only subgroup of Bcl-2 related proteins, and exists in three distinct isoforms, Bim_S (short), Bim_L (long) and Bim_{EL} (extra long). ERK1/2 phosphorylates Bim_{EL}, resulting in rapid degradation of the isoform via the proteasome pathway. At least three sites for ERK1/2 phosphorylation exist on Bim_{EL}, whereas ERK1/2 does not effect Bim_S and Bim_L, implying a unique role for Bim_{EL} in cell survival signaling.

CHROMOSOMAL LOCATION

Genetic locus: BCL2L11 (human) mapping to 2q13; Bcl2l11 (mouse) mapping to 2 F1.

SOURCE

Bim (H-5) is a mouse monoclonal antibody raised against amino acids 4-195 of Bim_{EL} of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Bim (H-5) is available conjugated to agarose (sc-374358 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374358 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374358 PE), fluorescein (sc-374358 FITC), Alexa Fluor[®] 488 (sc-374358 AF488), Alexa Fluor[®] 546 (sc-374358 AF546), Alexa Fluor[®] 594 (sc-374358 AF594) or Alexa Fluor[®] 647 (sc-374358 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-374358 AF680) or Alexa Fluor[®] 790 (sc-374358 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Bim (H-5) is recommended for detection of Bim_{EL}, Bim_L and Bim_S of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Bim siRNA (h): sc-29802, Bim siRNA (m): sc-29803, Bim shRNA Plasmid (h): sc-29802-SH, Bim shRNA Plasmid (m): sc-29803-SH, Bim shRNA (h) Lentiviral Particles: sc-29802-V and Bim shRNA (m) Lentiviral Particles: sc-29803-V.

Molecular Weight of Bim_S/Bim_L/Bim_{EL}: 19/21/24 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, MOLT-4 cell lysate: sc-2233 or HL-60 whole cell lysate: sc-2209.

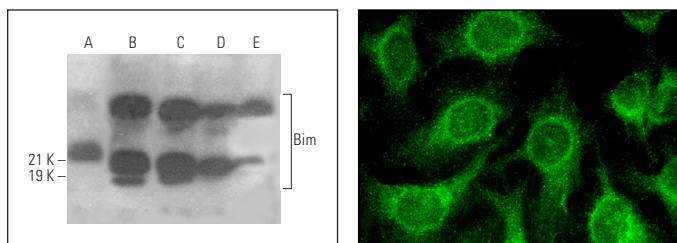
STORAGE

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



Bim (H-5): sc-374358. Western blot analysis of Bim expression in WEHI-231 (A), K-562 (B), HL-60 (C), Raji (D) and MOLT-4 (E) whole cell lysates.

Bim (H-5): sc-374358. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Zeuner, A., et al. 2014. Elimination of quiescent/slow-proliferating cancer stem cells by Bcl-x_L inhibition in non-small cell lung cancer. *Cell Death Differ.* 21: 1877-1888.
- Deng, L., et al. 2015. HCV upregulates Bim through the ROS/JNK signalling pathway, leading to Bax-mediated apoptosis. *J. Gen. Virol.* 96: 2670-2683.
- Laporte, A.N., et al. 2017. HDAC and proteasome inhibitors synergize to activate pro-apoptotic factors in synovial sarcoma. *PLoS ONE* 12: e0169407.
- Bai, X., et al. 2018. MiRNA-20a-5p promotes the growth of triple-negative breast cancer cells through targeting RUNX3. *Biomed. Pharmacother.* 103: 1482-1489.
- Lam, S.K., et al. 2019. Endogenous arginase 2 as a potential biomarker for PEGylated arginase 1 treatment in xenograft models of squamous cell lung carcinoma. *Oncogenesis* 8: 18.
- Wang, H., et al. 2019. LINC00261 functions as a competing endogenous RNA to regulate BCL2L11 expression by sponging miR-132-3p in endometriosis. *Am. J. Transl. Res.* 11: 2269-2279.
- Aldonza, M.B.D., et al. 2020. Prior acquired resistance to paclitaxel relays diverse EGFR-targeted therapy persistence mechanisms. *Sci. Adv.* 6: eaav7416.
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PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.