SANTA CRUZ BIOTECHNOLOGY, INC.

Bcl-G (E-10): sc-398223

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Apoptosis is defined as a set of cascades which, when initiated, program the cell to undergo lethal changes such as membrane blebbing, mitochondrial breakdown and DNA fragmentation. Bcl-2 is one of many key regulators of apoptosis that are essential for proper development, tissue homeostasis and protection against foreign pathogens. Bcl-G, also known as BCL2L14 (BCL2-like 14) or BCLG, is a 327 amino acid cytoplasmic protein that belongs to the Bcl-2 family of apoptosis-regulating proteins. Bcl-G is expressed as three alternatively spliced transcripts designated short, medium and long. The short isoform is testis-specific and localizes to cytosolic organelles, while the long isoform is widely expressed and is distributed throughout the cytosol. Overexpression of Bcl-G induces apoptosis in cells, suggesting a possible role for Bcl-G in tumor suppression.

REFERENCES

1. Guo, B., et al. 2001. Bcl-G, a novel pro-apoptotic member of the Bcl-2 family. J. Biol. Chem. 276: 2780-2785.
2. Ozalp, S.S., et al. 2002. Bcl-2 expression in preinvasive and invasive cervical lesions. Eur. J. Gynaecol. Oncol. 23: 419-422.
3. Abdelhaleem, M., et al. 2006. A novel TEL-AML1 fusion transcript involving the pro-apoptotic gene Bcl-G in pediatric precursor B acute lymphoblastic leukemia. Leukemia 20: 1294.
4. Nakamura, M. and Yamaguchi, S. 2006. The ubiquitin-like protein MNSFβ regulates ERK-MAPK cascade. J. Biol. Chem. 281: 16861-16869.
5. Soung, Y.H., et al. 2006. BH3 domain mutation of proapoptotic genes Bad, Bmf and Bcl-G is rare in transitional cell carcinomas of the urinary bladder. Pathology 38: 33-34.
6. Yoo, N.J., et al. 2007. Mutational analysis of the BH3 domains of proapoptotic Bcl-2 family genes Bad, Bmf and Bcl-G in laryngeal squamous cell carcinomas. Tumori 93: 195-197.

CHROMOSOMAL LOCATION

Genetic locus: BCL2L14 (human) mapping to 12p13.2.

SOURCE

Bcl-G (E-10) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of Bcl-G of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Bcl-G (E-10) is available conjugated to agarose (sc-398223 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398223 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398223 PE), fluorescein (sc-398223 FITC), Alexa Fluor® 488 (sc-398223 AF488), Alexa Fluor® 546 (sc-398223 AF546), Alexa Fluor® 594 (sc-398223 AF594) or Alexa Fluor® 647 (sc-398223 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398223 AF680) or Alexa Fluor® 790 (sc-398223 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Bcl-G (E-10) is recommended for detection of Bcl-G 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Bcl-G siRNA (h): sc-72631, Bcl-G shRNA Plasmid (h): sc-72631-SH and Bcl-G shRNA (h) Lentiviral Particles: sc-72631-V.

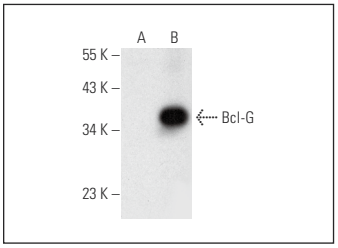
Molecular Weight of Bcl-G: 30 kDa.

Positive Controls: Bcl-G (h): 293T Lysate: sc-114123.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Bcl-G (E-10): sc-398223. Western blot analysis of Bcl-G expression in non-transfected: sc-117752 (**A**) and human Bcl-G transfected: sc-114123 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Bernadotte, A., et al. 2018. In silico identification and biochemical characterization of the human dicarboxylate clamp TPR protein interaction network. FEBS Open Bio 8: 1830-1843.

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.