SANTA CRUZ BIOTECHNOLOGY, INC.

BCLAF1 (M33-P5B11): sc-101388

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Apoptosis defines a set of cascades which, when initiated, programs 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 which are essential for proper development, tissue homeostasis and protection against foreign pathogens. BCLAF1 (BCL2-associated transcription factor 1), also known as BTF, is a 920 amino acid protein that localizes to both the nucleus and the cytoplasm. Expressed throughout the body, BCLAF1 functions as a death-promoting factor that interacts with and represses the transcription of Bcl-2, thereby influencing the regulation of apoptosis. Overexpression of BCLAF1 results in the relocation of BCLAF1 to the nuclear envelope and the subsequent induction of apoptosis, an event that may occur as a result of DNA damage. Four isoforms of BCLAF1 exist due to alternative splicing events.

REFERENCES

1. Kasof, G.M., et al. 1999. Btf, a novel death-promoting transcriptional repressor that interacts with Bcl-2-related proteins. Mol. Cell. Biol. 19: 4390-4404.
2. Tai, H.H., et al. 2003. CHD1 associates with NCoR and histone deacetylase as well as with RNA splicing proteins. Biochem. Biophys. Res. Commun. 308: 170-176.

CHROMOSOMAL LOCATION

Genetic locus: BCLAF1 (human) mapping to 6q23.3; Bclaf1 (mouse) mapping to 10 A3.

SOURCE

BCLAF1 (M33-P5B11) is a mouse monoclonal antibody raised against a synthetic peptide corresponding to amino acids 900-909 of BCLAF1 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.

BCLAF1 (M33-P5B11) is available conjugated to agarose (sc-101388 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-101388 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-101388 PE), fluorescein (sc-101388 FITC), Alexa Fluor® 488 (sc-101388 AF488), Alexa Fluor® 546 (sc-101388 AF546), Alexa Fluor® 594 (sc-101388 AF594) or Alexa Fluor® 647 (sc-101388 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-101388 AF680) or Alexa Fluor® 790 (sc-101388 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

BCLAF1 (M33-P5B11) is recommended for detection of BCLAF1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for BCLAF1 siRNA (h): sc-72633, BCLAF1 siRNA (m): sc-72634, BCLAF1 shRNA Plasmid (h): sc-72633-SH, BCLAF1 shRNA Plasmid (m): sc-72634-SH, BCLAF1 shRNA (h) Lentiviral Particles: sc-72633-V and BCLAF1 shRNA (m) Lentiviral Particles: sc-72634-V.

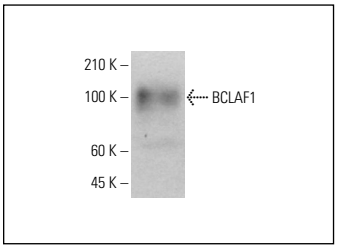
Molecular Weight of BCLAF1 isoforms: 100-150 kDa.

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

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).

DATA



BCLAF1 (M33-P5B11): sc-101388. Western blot analysis of BCLAF1 expression in HeLa whole cell lysate.

SELECT PRODUCT CITATIONS

1. Shen, B., et al. 2016. Upregulated SMYD3 promotes bladder cancer progression by targeting BCLAF1 and activating autophagy. Tumour Biol. 37: 7371-7381.
2. Tan, W., et al. 2022. Hsp90 inhibitor STA9090 induced VPS35 related extracellular vesicle release and metastasis in hepatocellular carcinoma. Transl. Oncol. 26: 101502.
3. Sochacka, M., et al. 2022. FGF12 is a novel component of the nucleolar NOLC1/TCOF1 ribosome biogenesis complex. Cell Commun. Signal. 20: 182.
4. Zhao, S., et al. 2023. Exosomal transfer of miR-181b-5p confers senescence-mediated doxorubicin resistance via modulating BCLAF1 in breast cancer. Br. J. Cancer 128: 665-677.

RESEARCH USE

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