SANTA CRUZ BIOTECHNOLOGY, INC.

# BCLAF1 (5): sc-135845

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., Goyal, L. and White, E. 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., Geisterfer, M., Bell, J.C., Moniwa, M., Davie, J.R., Boucher, L. and McBurney, M.W. 2003. CHD1 associates with NCoR and histone deacetylase as well as with RNA splicing proteins. Biochem. Biophys. Res. Commun. 308: 170-176.
3. Haraguchi, T., Holaska, J.M., Yamane, M., Koujin, T., Hashiguchi, N., Mori, C., Wilson, K.L. and Hiraoka, Y. 2004. Emerin binding to BTF, a death-promoting transcriptional repressor, is disrupted by a missense mutation that causes Emery-Dreifuss muscular dystrophy. Eur. J. Biochem. 271: 1035-1045.
4. Beausoleil, S.A., Jedrychowski, M., Schwartz, D., Elias, J.E., Villén, J., Li, J., Cohn, M.A., Cantley, L.C. and Gygi, S.P. 2004. Large-scale characterization of HeLa cell nuclear phosphoproteins. Proc. Natl. Acad. Sci. USA 101: 12130-12135.
5. Mansharamani, M. and Wilson, K.L. 2005. Direct binding of nuclear membrane protein MAN1 to emerin *in vitro* and two modes of binding to barrier-to-autointegration factor. J. Biol. Chem. 280: 13863-13870.
6. Nousiainen, M., Silljé, H.H., Sauer, G., Nigg, E.A. and Körner, R. 2006. Phosphoproteome analysis of the human mitotic spindle. Proc. Natl. Acad. Sci. USA 103: 5391-5396.
7. Liu, H., Lu, Z.G., Miki, Y. and Yoshida, K. 2007. Protein kinase C δ induces transcription of the TP53 tumor suppressor gene by controlling death-promoting factor BTF in the apoptotic response to DNA damage. Mol. Cell. Biol. 27: 8480-8491.


## CHROMOSOMAL LOCATION

Genetic locus: BCLAF1 (human) mapping to 6q23.3.

## SOURCE

BCLAF1 (5) is a mouse monoclonal antibody raised against amino acids 318-439 of BCLAF1 of human origin.

## PRODUCT

Each vial contains 50 µg $IgG_1$ in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, 20% glycerol and 0.04% stabilizer protein.

## APPLICATIONS

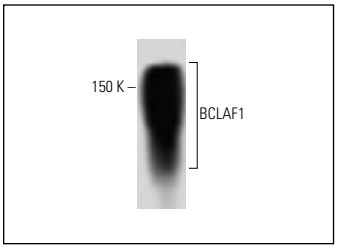
BCLAF1 (5) is recommended for detection of BCLAF1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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

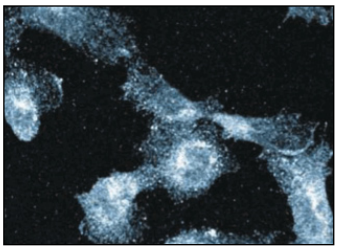
Molecular Weight of BCLAF1 isoforms: 100-150 kDa.

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

## DATA




BCLAF1 (5): sc-135845. Western blot analysis of BCLAF1 expression in Jurkat whole cell lysate.



BCLAF1 (5): sc-135845. Immunofluorescence staining of human endothelial cells showing nuclear and cytoplasmic localization.

## SELECT PRODUCT CITATIONS


1. Qin, C., Zhang, R., Lang, Y., Shao, A., Xu, A., Feng, W., Han, J., Wang, M., He, W., Yu, C. and Tang, J. 2019. BCLAF1 critically regulates the type I interferon response and is degraded by alphaherpesvirus US3. PLoS Pathog. 15: e1007559.


## 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. Not for resale.

## PROTOCOLS

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