SANTA CRUZ BIOTECHNOLOGY, INC.

BAP31 (H-90): sc-48766

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

BAP31, a human Bcl-2-interacting protein, is an integral membrane protein that is a component of a protein complex in the endoplasmic reticulum. This protein complex mechanically bridges an apoptosis-initiating caspase, like procaspase-8, with the anti-apoptotic regulator Bcl-2 or Bcl-x_L. The cytosolic domain of BAP31 contains two identical caspase recognition sites, which are preferentially cleaved by initiator caspases, including caspase-8. Cleavage of BAP31 during apoptosis generates a p20 fragment, which remains integrated in the membrane and, when expressed ectopically, is a potent inducer of cell death. BAP31 cleavage is important for manifesting cytoplasmic apoptotic events associated with membrane fragmentation and in the cross talk between mitochondria and the endoplasmic reticulum during FAS-mediated apoptosis. The BAP31 gene is ubiquitously expressed in murine tissues and is located on the X chromosome in both mouse and human.

REFERENCES

1. Adachi, T., et al. 1996. The specificity of association of the IgD molecule with the accessory proteins BAP31/BAP29 lies in the IgD transmembrane sequence. EMBO J. 15: 1534-1541.
2. Ng, F.W., et al. 1997. p28 BAP31, a Bcl-2/Bcl-x_L- and procaspase-8- associated protein in the endoplasmic reticulum. J. Cell Biol. 139: 327-338.
3. Annaert, W.G., et al. 1997. Export of cellubrevin from the endoplasmic reticulum is controlled by BAP31. J. Cell Biol. 139: 1397-1410.
4. Granville, D.J., et al. 1998. Rapid cytochrome c release, activation of caspases-3, -6, -7 and -8 followed by BAP31 cleavage in HeLa cells treated with photodynamic therapy. FEBS Lett. 437: 5-10.
5. Nguyen, M., et al. 2000. Caspase-resistant BAP31 inhibits FAS-mediated apoptotic membrane fragmentation and release of cytochrome c from mitochondria. Mol. Cell. Biol. 20: 6731-6740.

CHROMOSOMAL LOCATION

Genetic locus: BCAP31 (human) mapping to Xq28; Bcap31 (mouse) mapping to X A7.3.

SOURCE

BAP31 (H-90) is a rabbit polyclonal antibody raised against amino acids 157-246 mapping within a C-terminal cytoplasmic domain of BAP31 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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.

APPLICATIONS

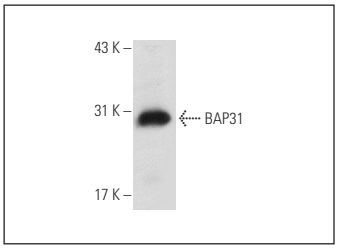
BAP31 (H-90) is recommended for detection of BAP31 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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 BAP31 siRNA (h): sc-37283, BAP31 siRNA (m): sc-37284, BAP31 shRNA Plasmid (h): sc-37283-SH, BAP31 shRNA Plasmid (m): sc-37284-SH, BAP31 shRNA (h) Lentiviral Particles: sc-37283-V and BAP31 shRNA (m) Lentiviral Particles: sc-37284-V.

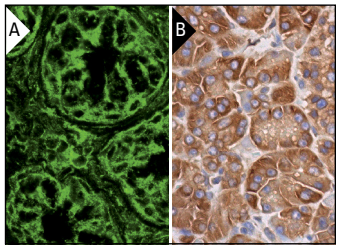
Molecular Weight of BAP31: 28 kDa.

Positive Controls: mouse pancreas extract: sc-364244, HL-60 whole cell lysate: sc-2209 or HeLa whole cell lysate: sc-2200.

DATA



BAP31 (H-90): sc-48766. Western blot analysis of BAP31 expression in mouse pancreas tissue extract.



BAP31 (H-90): sc-48766. Immunofluorescence staining of normal mouse intestine frozen section showing cytoplasmic and membrane staining (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells and Islets of Langerhans (**B**).

SELECT PRODUCT CITATIONS

1. Lu, F.H., et al. 2010. Calcium-sensing receptors regulate cardiomyocyte Ca^{2+} signaling via the sarcoplasmic reticulum-mitochondrion interface during hypoxia/reoxygenation. J. Biomed. Sci. 17: 50.
2. Albert, T.K., et al. 2016. The establishment of a hyperactive structure allows the tumour suppressor protein p53 to function through P-TEFb during limited CDK9 kinase inhibition. PLoS ONE 11: e0146648.

PROTOCOLS

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