

BAP1 (h2): 293T Lysate: sc-171879

BACKGROUND

Mutations within the BRCA1 gene, localized to chromosome 17q, are believed to account for approximately 45% of families with increased incidence of both early-onset breast cancer and ovarian cancer. The BRCA1 gene is expressed in numerous tissues, including breast and ovary, and encodes a predicted protein of 1,863 amino acids. This protein contains a RING domain near the N-terminus and appears to encode a tumor suppressor. BARD1 (BRCA1-associated RING domain protein 1) and BAP1 (BRCA1-associated protein 1) have both been shown to bind to the N-terminus of BRCA1 and are potential mediators of tumor suppression. BARD1 contains an N-terminal RING domain and three tandem ankyrin repeats. The C-terminus of BARD1 contains a region with sequence homology to BRCA1, termed the BRCT domain. BAP1 is a ubiquitin hydrolase and has been shown to enhance BRCA1-mediated cell growth suppression.

REFERENCES

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3. Novak, R. 1994. Breast cancer gene offers surprises. *Science* 265: 1796-1799.
4. Futreal, P.A., et al. 1994. BRCA1 mutations in primary breast and ovarian carcinomas. *Science* 266: 120-122.
5. Wu, L.C., et al. 1996. Identification of a RING protein that can interact *in vivo* with the BRCA1 gene product. *Nat. Genet.* 14: 430-440.
6. Jin, Y., et al. 1997. Cell cycle-dependent co-localization of BARD1 and BRCA1 proteins in discrete nuclear domains. *Proc. Natl. Acad. Sci. USA* 94: 12075-12080.
7. Jensen, D.E., et al. 1998. BAP1: a novel ubiquitin hydrolase which binds to the BRCA1 RING finger and enhances BRCA1-mediated cell growth suppression. *Oncogene* 16: 1097-1112.
8. Thai, T.H., et al. 1998. Mutations in the BRCA1-associated RING domain (BARD1) gene in primary breast, ovarian and uterine cancers. *Hum. Mol. Genet.* 7: 195-202.

CHROMOSOMAL LOCATION

Genetic locus: BAP1 (human) mapping to 3p21.1.

PRODUCT

BAP1 (h2): 293T Lysate represents a lysate of human BAP1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

BAP1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive BAP1 antibodies. Recommended use: 10-20 µl per lane.

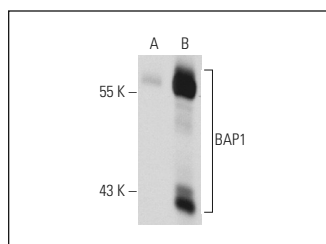
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

BAP1 (C-4): sc-28383 is recommended as a positive control antibody for Western Blot analysis of enhanced human BAP1 expression in BAP1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



BAP1 (C-4): sc-28383. Western blot analysis of BAP1 expression in non-transfected: sc-117752 (A) and human BAP1 transfected: sc-171879 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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