SANTA CRUZ BIOTECHNOLOGY, INC.

BARD1 (H-300): sc-11438

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 an ubiquitin hydrolase and has been shown to enhance BRCA1-mediated cell growth suppression.

CHROMOSOMAL LOCATION

Genetic locus: BARD1 (human) mapping to 2q35; Bard1 (mouse) mapping to 1 C3.

SOURCE

BARD1 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of BARD1 (BRCA-associated RING domain protein 1) 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.

APPLICATIONS

BARD1 (H-300) is recommended for detection of BARD1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for BARD1 siRNA (h): sc-37311, BARD1 siRNA (m): sc-37312, BARD1 shRNA Plasmid (h): sc-37311-SH, BARD1 shRNA Plasmid (m): sc-37312-SH, BARD1 shRNA (h) Lentiviral Particles: sc-37311-V and BARD1 shRNA (m) Lentiviral Particles: sc-37312-V.

Molecular Weight of BARD1: 79 kDa.

Positive Controls: U-2 OS cell lysate: sc-2295 or BT-20 cell lysate: sc-2223.

STORAGE

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

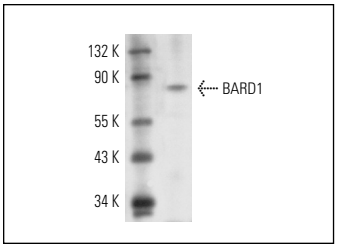
PROTOCOLS

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

RESEARCH USE

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

DATA



BARD1 (H-300): sc-11438. Western blot analysis of BARD1 expression in U-2 OS whole cell lysate.

SELECT PRODUCT CITATIONS

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3. Creekmore, A.L., et al. 2007. Estrogen receptor α regulates expression of the breast cancer 1 associated ring domain 1 (BARD1) gene through intronic DNA sequence. Mol. Cell. Endocrinol. 267: 106-115.
4. Wei, L., et al. 2008. Rapid recruitment of BRCA1 to DNA double-strand breaks is dependent on its association with Ku80. Mol. Cell. Biol. 28: 7380-7393.
5. Ryser, S., et al. 2009. Distinct roles of BARD1 isoforms in mitosis: full-length BARD1 mediates Aurora B degradation, cancer-associated BARD1β scaffolds Aurora B and BRCA2. Cancer Res. 69: 1125-1134.
6. Ueki, T., et al. 2009. Ubiquitination and downregulation of BRCA1 by ubiquitin-conjugating enzyme E2T overexpression in human breast cancer cells. Cancer Res. 69: 8752-8760.
7. Ransburgh, D.J., et al. 2010. Identification of breast tumor mutations in BRCA1 that abolish its function in homologous DNA recombination. Cancer Res. 70: 988-995.
8. Lu, Y., et al. 2011. BRCA1/BARD1 complex interacts with steroidogenic factor 1-A potential mechanism for regulation of aromatase expression by BRCA1. J. Steroid Biochem. Mol. Biol. 123: 71-78.